

JAMECO®

ELECTRONICS

Brand Names & Generic Equivalents

Quality Components For Less

Catalog 243
August 2004

30th Anniversary
Commemorative Edition

Celebrating 30 Years of Commitment!

- *To Find the Best Values Around the World*
- *To Provide You with the Lowest Prices Anywhere*
- *To Supply Quality Electronic Components*
- *To Provide 99+% Same-day Delivery*

Over 1,400
New Products
Added!

1-800-831-4242
www.Jameco.com

New Featured Products

Expanded Line of TI and Major-Brand ICs, Now Including AC, ACT & ALS!

Our customers have spoken: More is better! Now, in addition to our extensive line of HC and HCT logic products, we've added more AC, ACT and ALS ICs in an easy-to-use, color-coded, cross-referenced format.



This catalog continues our commitment to expand our great line of ICs from Texas Instruments. For your convenience, each chip type will include two pin-for-pin compatible choices: One from TI, and the other from one of six leading manufacturers. So, when you need to ensure a specific manufacturer for your BOM or to comply with your approved vendor list, you can choose the standard-setting quality of the world-trusted TI brand. And when value with full compatibility is your primary need, you can choose our corresponding mixed major-brands product for even greater savings.

Whatever your choice, TI or major-brand equivalents, DIP or surface-mount, you can be assured that you're getting the best price, superior service, and in-stock availability from Jameco. And with each new catalog, you'll notice that we're adding even more new families of components to better meet your needs!



When Your Project Demands Fast Memory, Jameco Has More SRAMs!

We asked our customers what they needed in static memory, and now we have more in stock! Take a look through our catalog, and you'll see more selection, more packages and more formats in SRAM. These chips have



been chosen to provide businesses and educators with the time-tested technology they need to get their projects up and running, simply and economically!



Flexible Programming, Jameco Style!

When programmable read-only memory is a cornerstone of your product or prototype choosing the right type is a high priority. With that in mind, we've broadened our selection of OTP-PROMs, UV-PROMs and EEPROMs to provide you



with the perfect choice for your needs. And when you're buying from Jameco, you know all of these proven products are at the lowest guaranteed prices. Plus we're ready to ship them the day you place your order!



News Flash! NTE® Line Expanded to Top 550 Products!

When you think of replacement semiconductors, you naturally think of NTE. And now as promised, Jameco Electronics is proud to expand our line to the top 550 NTE products, all in-stock and at unbeatable prices!



As an authorized NTE franchise distributor, we have a direct line to this outstanding provider of high quality, broad tolerance components. Whatever your application, check out this top-tier selection of logic and linear ICs, voltage regulators, varistors, LEDs, IC sockets, transistors, rectifiers, diodes, thermal fuses and other popular parts. Use Jameco as your one-stop,



ready-to-ship resource for repair products. And if by chance you don't find what you need, a Jameco representative is a phone call away at 1-800-831-4242. We'll hook you up with a solution from the expanded line of quality NTE products.

At Jameco, we never rest in the quest to meet your needs.



News FLASH! More from ZiLOG, Including Flash-Based Microcontrollers!

In this catalog, you'll notice a greatly expanded listing of ZiLOG microcontrollers, including flash-based Z-80s. Each is ready to serve as a solid foundation for your design. The result? More features with low power consumption and more onboard memory to simplify and optimize your product.



We've selected some of the most popular Z80s for our customers with onboard flash ROM ranging from 16kB up to 64kB. And to fill out your needs from breadboard to finished product, choose from top-quality support components from Jameco. Everywhere

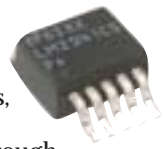


you look in these pages, you'll find more options and a greater selection of your most-needed items, all in-stock and delivered with industry-leading customer service and unbeatable prices!



Visit Our Expanded Linear IC Section!

We've expanded our inventory of high-performance LTC, Maxim and Analog Devices linear and interface products! Our buying power puts the devices you need in your hands,



with economy, performance and pin-for-pin compatibility. Look through this section and you'll see it's been redesigned to make it easier than ever to find exactly what you need. Forget backorders, multi-vendor searches or quantity limitations when you're filling out your bill of materials. Top quality and unbeatable prices are just a toll-free call away!



Celebrating 30 Years of Commitment

Jameco Electronics first started in August of 1974. Back then, Dennis Farrey founded the company, named it after his newborn son James and committed to searching the world to bring his customers great values in electronic components.

James has since grown up, and with the guidance of his dedicated father, has learned the importance of commitment, especially when it comes to providing our customers with a wide selection of high-quality products, the best prices and great service.



Left to right:
Dennis, Jake &
James Farrey

Now James has his own son, Jake, and he's preparing to instill the same values and sense of commitment. Yes, the technology has significantly changed in the last 30 years, but the Farrey family continues to march to the consistent beat of value and commitment.



New! Practical Practices

Whether you have spent your lifetime designing advanced products or you just recently became technician-certified, Jameco can provide you with tips to help save money.

Look for our new column, **Practical Practices – Money Saving Tips for the Engineer**, throughout this catalog. Throughout our 30 years in the industry, we've heard of some interesting ways to save money and improve your designs without compromising your product's design. And since you want to know about other ways to add to your company's bottom line, Jameco has begun to offer this forum.

If you are interested in sharing your money-saving wisdom and experience, submit your original idea to us at Marketing@Jameco.com. Should we publish your idea in our catalog, we'll also credit your account \$50 towards your next purchase. And yes, perhaps your article will make you famous too!

Why Are You Buying This?

Engineers are said to be linear thinkers, not good with shortcuts. So they say...

So if you're on this page, you may be thinking about buying power plugs. A lot of our customers have bought them for use in wall adapters and table-top power supplies.

Q&A: Why would you consider buying wall adapters in volume, then buying power plugs in volume, then spending the time and money having them assembled together (in volume)?

Not only will Jameco provide you with the guaranteed lowest price, they'll also assemble the wall adapters and plugs to your specifications at no extra charge! That's right, it's free. And if you want a more professional look, just ask to have your company logo added to the wall adapter. Call 1-800-831-4242 for more details.

Now you can R!T!

Practical Practices
Money Saving Tips for the Engineer

Guaranteed Lowest Prices

Jameco Electronics is committed to saving you significant money on quality electronic components and we **GUARANTEE** it.



So what do we mean by significant amounts of money? Our goal is to typically save you 10-20% off market price. Yes, that means for every hundred you spend, you could be adding \$10-\$20 to your bottom line.

While others make it difficult for you to compare prices between manufacturers, we're doing just the opposite. Check out our 74AC, 74ACT, 74HC and 74HCT product lines on pages 13-18. You can save up to 10% on Texas Instruments products. If you prefer savings closer to 20%, then select our Mixed Major Brands. We have placed each side-by-side, so it's easier for you to compare.

If you need to make a spot buy, we also offer many terrific deals! Be sure to consider our special offers, especially those at the bottom of power supply pages 118-143. You can save up to 70% off the manufacturer's list price on new products.

Not convinced you'll save more at Jameco? Then go to pages 247 & 248. You'll find dozens and dozens of price comparisons. Each was compared on June 17, 2004 to help further illustrate how much you can save when shopping at Jameco.

And if you're still not convinced, be sure check out even more savings on page 5. We're here to save you money, and we guarantee it!

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Order Info, Order Form, Product & Manufacturer Indices 241-246

PRICES

Prices are effective 7-12-04.

Prices and discounts are subject to change without notice.

You Asked for Value-Priced Resistor Networks:
We've Got Them!

Our goal is to become your one-stop provider for all the components you typically need. With that in mind, we've added a full line of value-priced resistor networks in 6-, 8- and 10-pin, through-hole style.

Our catalog listing makes it easy to find what you need: We present these performance-equivalent components in a matrix with matching Bourns 46xx series cross-references. Save money and save steps with resistor networks from the leader in value, quality and service: Jameco!



To Get Connected with Audio Excellence,
Get Switchcraft®!

Your audio projects deserve the finest in solid, professional-grade connections, and Switchcraft is the solution! We carry the most-requested sizes and specs for our customer's needs, from phono and microphone jacks to subminiature connectors. You'll find a wide variety of finishes and form factors, including panel and surface mounts, mono/stereo plugs/jacks, and straight or right-angle configurations.



Switchcraft®

Power Your Designs Without Draining Your Budget!

As it has since 1982, Mean Well means quality in enclosed power supplies. And Jameco means to be your source for a complete line of these topnotch units!

We have 135 different Mean Well power supplies from 30 different series. They are rated from 25 to 1,500 watts, have single and multiple outputs, and all are in-stock for immediate shipment. If your design requires a unit outside this broad range, your Jameco rep makes the solution just a toll-free phone call away.

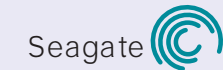
Mean Well also means value. Our buying power allows you to order these high-quality enclosed power supplies at an incredible savings over comparable domestic products. All are UL, CSA, TUV and CE-certified, and feature a full two or three-year manufacturer's warranty. And low price doesn't mean compromised features! Units in this line feature universal input, power factor correction and current sharing, depending on their expected application.

Together, Jameco and Mean Well mean top quality enclosed power supplies, with the no-hassle service and low-price guarantee we're famous for!



Seagate Means
Hard Drive

All engineers know it: you can never have too much "headroom" when it comes to data storage. From expanding databases, digital music and video to today's latest applications, the storage demands are enormous. So it's always the perfect time to add these top-quality drives to your new or existing system!



Fast, Quiet, Reliable
Performance!

We carry the most popular sizes with the most-requested features from the premier manufacturer of hard drives, Seagate. Whether you need Ultra ATA, serial ATA or the rugged, compact performance of 2.5" mobile-ready drives, we've got the drive to meet your needs. Seagate quality and reliability, in-stock and ready to ship at a guaranteed low price from Jameco: who could ask for anything more?

More High-Quality Potter

P&B relays are known for their world-class quality, reliability and consistency. Now, Jameco features a broader line of these fine devices to 'switch on' your projects!



and Brumfield Relays!

Whether your specialty is automotive, communications, industrial, appliance or HVAC design, we've got a P&B solution for your needs. Check out our expanded, in-stock selection, and you'll see what we mean!



We've Pumped Up the
Volume on Quality Alpha
Potentiometers!



Whatever your application, Alpha potentiometers can add a new level of feel and finish, and this catalog features more Alpha controls than ever before! Either for new applications or as no-hassle, drop-in replacement parts, these pots will provide excellent performance and long, trouble-free service. Thumb through our new listing, and add the feel of quality to your design with Alpha!



Clarostat and Jameco:
Controlling the High-Cost
of Quality Pots!



For high performance pots at a low, low price, Clarostat is the clear choice! These pots are designed from the ground up to provide smooth, solid operation in a wide variety of commercial, industrial and precision applications. Flip to the Clarostat listing on page 52 and you'll see more choices and more value from your single-source supplier, Jameco!

Intel Motherboards, for the Ultimate in Speed,
Compatibility and Confidence!

Choose an Intel motherboard for your next system or upgrade, and you'll be light-years ahead in features, compatibility and state-of-the-art technology.

We've assembled a selection of proven platforms to cover your requirements. Whether you're putting together a desktop system or an embedded solution built around one

of these great boards, you'll have confidence in the rock-solid performance that only Intel products can provide. And we've organized our line in an at-a-glance visual grid that lets you compare features, requirements and price to make your decision even easier!



Jameco Carries the Best Intel CPUs for Your Money!

Whether you're building your own desktop system or upgrading your old microprocessor, Jameco has the CPU for you!

Our expanding line of Intel processors is designed to offer you the most popular, proven performers in the P4 and the Celeron families. We've chosen Intel for the same reasons we believe you will: standard-setting performance, unparalleled compatibility, and leadership in technology, quality and reliability.



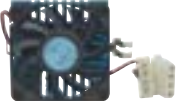
All are new, factory-sealed CPUs, complete with an Intel-certified active heat sink and full 3-year limited warranty from the manufacturer. Build a system around these solid foundations and save!

Keep Your Cool for Maximum Reliability!

Running your CPU at maximum speed also generates maximum heat. Reduce the risk of thermal run-away, a condition that occurs when overheated ICs conduct more current and thereby generate increased heat, by improving the heat dissipation of your CPU.

Each of these CPU coolers combines a large surface area heat sink with a quiet DC fan to maximize dissipation and airflow. As a result, your CPU will run cooler and be less prone to thermal run-away.

It is never too late to begin protecting your CPU, and when you check out the great prices on page 162, you might begin to wonder why you're not protecting your system now!



3M Hook and Loop Fastening System

Nylon hooks mesh with pliable loops. 1" wide strip with adhesive backing sticks instantly to many surfaces.

- Hook and loop: 1" x 15'



| Part No. | Product No. | 1 | 5 | 10 |
|----------|------------------------|---------|---------|---------|
| 286897CX | 3M 06481 (white) ... | \$31.09 | \$29.99 | \$28.35 |
| 286900CX | 3M 06488 (black) | 31.55 | 30.49 | 28.75 |

3M Dual Lock Fastening System

3M™ dual lock™ reclosable fasteners have been used extensively in transportation, electronics, business equipment, machinery, medical, sign and display markets. When the mushroom-shaped stems interlock, tensile strength is high enough to replace mechanical fasteners, yet you can readily open and close Dual Lock fasteners hundreds of times. High temperature and solvent resistant.

- Adhesive backing for strong bonds
- 5x stronger than conventional hook & loop fasteners
- Audible snap assures secure closure



| Part No. | Product No. | 1 | 5 | 10 |
|----------|----------------------|---------|---------|---------|
| 288438CX | 3M 06463 (clear) ... | \$74.95 | \$71.19 | \$67.65 |

3M Double-Sided Foam Tape

Used in a wide variety of applications, this tape features high-shear acrylic adhesive and high temperature resistance. Adheres securely to any surface with its double-sided adhesive. 1/8" thick open-cell urethane foam carrier. Ideal for many manufacturing applications.

- 1/8" thick
- 1" x 12'



| Part No. | Product No. | 1 | 5 | 10 |
|----------|---------------|---------|---------|---------|
| 285907CX | 3M 4008 | \$14.89 | \$11.35 | \$10.55 |

3M Heat Shrink Tubing 102-Piece Kit

3M™ FP-301 is a heat shrinkable flexible polyolefin tubing that offers an outstanding balance of electrical, physical and chemical properties for a wide variety of industrial and military applications. Rated for 275°F (135°C) continuous operation. FP-301 tubing is typically used as a shrink-fit electrical insulation over cable splices and terminations. It is also used for lightweight wire harness covering, wire marking, wire bundling, component packaging and fire resistant covering.

- Assorted pre-shunk sizes: 3/16" (30 pieces); 1/4" (28 pieces); 3/8" (20 pieces); 1/2" (14 pieces); 3/4" (6 pieces); 1" (4 pieces)
- Pre-cut to 6" lengths



| Part No. | Description | 1 | 5 | 10 |
|----------|--------------------------|---------|---------|---------|
| 285481CX | Black color tubing | \$56.95 | \$53.70 | \$50.99 |

3M Tartan 1710 Electrical Tape

3M™ Tartan™ 1710 vinyl insulating tape offers good resistance to abrasion, moisture, alkalis, acid, copper corrosion and varying weather conditions (including ultraviolet).

- UL listed
- Flame retardant
- 0.75" x 60'

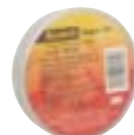


| Part No. | Product No. | 1 | 10 | 25 |
|----------|----------------|--------|--------|--------|
| 285587CX | 3M 49656 | \$0.95 | \$0.89 | \$0.86 |

3M Super 33+ Electrical Tape

This tape provides flexibility and easy handling for all around performance. It combines PVC backing with excellent electrical insulating properties to provide primary electrical insulation for splices up to 600V and protective jacketing. Excellent resistance to UV rays, abrasion, moisture, copper corrosion, alkalis and acids, and is flame-retardant. Excellent all-weather performance in cold to 0°F (-18°C) and is designed to perform in a continuous temperature environment up to 220°F (105°C).

- UL listed and CSA certified
- 0.75" x 66'



| Part No. | Product No. | 1 | 10 | 25 |
|----------|----------------|--------|--------|--------|
| 285464CX | 3M 06132 | \$4.35 | \$4.00 | \$3.98 |

3M Vinyl Electrical Tape

5-pack Multi-Colored

3M #35 vinyl electrical color coding tape is used in phase identification, color coding leads, piping systems and for marking safety areas. This tape is abrasion and weather-resistant, with excellent mechanical and electrical insulation properties that wraps smoothly and holds tight over a wide range of temperatures. UL Listed, CSA Certified, and flame-retardant. Excellent all-weather performance in cold to 0°F (-18°C) or hot to 220°F (105°C). 5 rolls to a pack with colors blue, green, red, yellow, and white.

- 1/2" x 20'



| Part No. | Product No. | 1 | 5 | 10 |
|----------|----------------|--------|--------|--------|
| 287806CX | 3M 10457 | \$7.95 | \$6.72 | \$6.10 |

3M Disposable Anti-static Wrist Strap

Disposable wrist strap for one time use and low durability applications. A hypoallergenic adhesive provides 360° contact with the skin to minimize skin-to-band resistance. At the other end, the conductive adhesive on the copper foil adheres to any convenient electrical ground. A current limiting resistor is fabricated into the plastic ribbon below the wristband.

- Unique construction for ease and convenience
- One size fits all
- Ship along with components and devices such as integrated circuits and computer peripheral cards



| Part No. | Product No. | 1 | 10 | 25 |
|----------|---------------|--------|--------|--------|
| 285456CX | 3M 2209 | \$1.25 | \$1.17 | \$1.11 |

3M Spring Connectors



3M™ O/B+, R/Y+ and B/G+ Wire Connectors make wiring fast and easy in three ways: they are exceptionally easy to handle, they offer a broad wire capacity, and it takes fewer sizes to get the job done.

285683CX: 2#22 to 2#12AWG, orange with blue skirt; replaces the orange, blue, and gray wire nut style connectors as well as 70% of the yellow wire nut and wing style connectors

285691CX: 2#18 to 2#8 to 5#12 AWG, red with yellow skirt, replaces both red and yellow wing style connectors

285704CX: 4#14 to 2#6 to 3#8 AWG, blue with gray skirt, covers both the large blue and gray connectors

- Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Product No. | 10 | 100 | 500 |
|----------|---------------|---------|---------|---------|
| 285683CX | 3M O/B+ | \$0.084 | \$0.075 | \$0.071 |
| 285691CX | 3M R/Y+ | .132 | .106 | .103 |
| 285704CX | 3M B/G+ | .253 | .253 | .253 |

3M Wire Markers pg 64



3M Rubber Feet pg 110



Contact Information

Order Desk 24/7, 365 Days a Year

Phone: 1-800-831-4242

Fax: 1-800-237-6948

E-mail: sales@Jameco.com

Website www.Jameco.com

International Order Desk

Phone: 650-592-8097

Fax: 650-592-2503

E-mail: international@Jameco.com

Technical Support

Phone: 1-800-831-4242

E-mail: tech@Jameco.com

Customer Service

Phone: 1-800-831-4242

E-mail: custservice@Jameco.com

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Indonesia: 1-803-015-237-6948

Brazil: 000-817-455-6119

New Zealand: 080-044-0470

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Yes! Both the Lowest Prices & Great Service.

You're probably aware of companies that advertise a few low prices, and you probably know of companies that purport to offer the best service levels. But in most cases you must choose between service and savings.

At Jameco, we take a different approach. We strive to provide you with the best of both worlds by offering a truly unique combination of the lowest prices and great service.



Save with the Lowest Prices...

Whether you need a name brand product or a generic equivalent, Jameco is committed to helping you save money. Look for the items with **orange** prices throughout this catalog

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|--------------------------|------------|------------|------------|------------|
| 152741CA | Straight header | \$.45 | \$.39 | \$.35 | \$.29 |
| 152752CA | Right angle header | .55 | .50 | .40 | .30 |
| 152733CA | Single w/ latch | .43 | .37 | .22 | .16 |

which means their prices have been reduced. Over 550 items have been lowered since we published our previous catalog just three months ago.

We truly stand behind our efforts to provide the best price. That's why long ago we instituted our Low-Price Guarantee. So if you manage to find a print ad with a lower price, just give us a call with the information. Our sales representatives will be happy to

adjust the price, and they'll be sure to communicate the information to our pricing specialists. Be sure to look below at some of the price comparisons we have found. All were updated on June 17, 2004.

Of course, another company may lower a few of their printed prices after we publish our catalog. Rest assured we'll still honor our low-price guarantee!

...And Great Service

We're also committed to providing the best service in the industry. With Jameco, you can place your order anytime of day or night by phone, fax, web or email. Orders placed by 6 PM EST will ship out the same business day, so you can have your products tomorrow. And since



over 99% of our products are in stock, backorders are few and far between. Frequent buyers can benefit even more. We'll assign a personal rep who understands your needs, product requirements, logistical issues and more. Our customers have told us this personalized service saves them time, reduces costs and eliminates the headaches they have experienced elsewhere. We think you'll appreciate it too.

You'll also find a host of other valuable services available throughout this catalog and our website. For instance, detailed manufacturer's specifications for most of our products are at www.Jameco.com, and the download is FREE. Use it today and bookmark it for tomorrow!

Check Out These Sample Price Comparisons*

| Product Description | Jameco Part No. | Jameco Page # | Jameco Price | Digi-Key® Corp. | Mouser® Electronics | Newark InOne® | Minimum Savings |
|--------------------------------|-----------------|---------------|--------------|-----------------|---------------------|---------------|-----------------|
| Logic, 74AC244, DIP | 211908CX | 14 | \$.29 | \$0.50 | \$0.87 | \$0.72 | 42.0% |
| Logic, 74AHC374, DIP | 214210CX | 20 | \$.26 | \$0.48 | — | \$0.48 | 45.8% |
| Logic, 74ALS240A, DIP | 245753CX | 20 | \$.39 | \$0.80 | \$0.99 | \$0.80 | 51.3% |
| Logic, 74HCT240, DIP | 45014CX | 18 | \$.32 | \$0.56 | \$0.39 | — | 17.9% |
| Logic, 74LS04, DIP | 46316CX | 19 | \$.29 | \$0.50 | — | \$0.50 | 42.0% |
| TI logic, SN74HCT240N, DIP | 250827CX | 18 | \$.35 | \$0.56 | \$0.39 | — | 10.3% |
| Linear, LM317LM, SOIC | 193551CX | 23 | \$.33 | \$0.72 | \$0.53 | \$0.63 | 37.7% |
| Linear, LM317LZ, TO-92 | 23552CX | 23 | \$.23 | \$0.70 | \$0.28 | \$0.40 | 17.9% |
| Linear, LF347N, DIP | 22904CX | 25 | \$.36 | \$0.76 | \$0.56 | \$0.59 | 35.7% |
| Linear, LF347M, SOIC | 245420CX | 25 | \$.54 | \$1.73 | \$0.81 | \$1.73 | 33.3% |
| EEPROM, 93C46, DIP | 102058CX | 6 | \$.35 | \$0.43 | \$0.41 | \$0.49 | 14.6% |
| MOSFET, IRF830 | 210585CX | 29 | \$.77 | — | \$1.06 | \$1.50 | 27.4% |
| Discrete LED, HLMP-1503 | 253631CX | 39 | \$1.03 | \$0.34 | \$0.13 | \$0.344 | 20.8% |
| Ligitek LSD5111-11, 7-Seg LED | 199531CX | 41 | \$.99 | \$2.31 | \$4.05 | — | 57.1% |
| MOC3010 Opto-isolator | 26278CX | 37 | \$.49 | \$0.84 | \$0.87 | \$0.84 | 41.7% |
| Cap, Tantalum, 10uF, 10V | 87020CX | 44 | \$.18 | \$0.24 | \$0.26 | \$0.249 | 25.0% |
| Cap, Elect, 470uF, 63V, Radial | 158465CX | 45 | \$.30 | \$1.50 | \$1.23 | \$1.01 | 70.3% |
| Cermet Pot, 50k, 3362P-503 | 254027CX | 54 | \$.59 | \$0.83 | \$0.83 | \$0.82 | 28.0% |
| P&B Relay, KHAU-17A11-24 | 282280CX | 105 | \$5.45 | \$6.91 | \$6.72 | \$8.40 | 18.9% |
| P&B Relay, KHAU-17D11-12 | 282301CX | 105 | \$5.19 | \$6.91 | \$6.72 | \$8.40 | 22.8% |
| Term Block, 12 pos, 10mm | 215028CX | 87 | \$1.89 | \$8.64 | \$4.53 | \$4.58 | 58.3% |
| DC Fan, 43CFM, 12VDC, 3.15" | 172460CX | 113 | \$9.95 | \$13.08 | \$11.15 | — | 10.8% |
| Switcher, Mean Well, 150W | 123393CX | 123 | \$69.95 | \$136.20 | \$154.13 | — | 48.6% |
| Coax Cable, 6', BNCM, 50Ω | 256760CX | 85 | \$12.19 | \$13.41 | \$15.79 | \$20.97 | 9.1% |

* These are single unit prices taken from each party's website on June 17, 2004 and do not include shipping & handling charges, volume discounts or any other discounts. Pricing does fluctuate, so please be sure to check when making purchases.

Over 1,400 New Products!

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| 74AHC | 20 |
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EPROM

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|--------------|--------|-----------------------------|--------|--------|--------|
| 399090CX | 2708 | DIP-24 | 1k x 8 450ns (+5V, +12V) | \$4.95 | \$4.25 | \$3.19 |
| 40002CX | 2716 | DIP-24 | 2k x 8 450ns (25V) | 3.99 | 3.59 | 3.19 |
| 39706CX | 27C16 | DIP-24 | 2k x 8 450ns (25V) CMOS | 7.25 | 6.55 | 5.99 |
| 40011CX | 2716-1 | DIP-24 | 2k x 8 350ns (25V) | 6.49 | 5.89 | 5.39 |
| 265931CX | 27C16-200 | DIP-24 | 2k x 8 200ns UVPROM (5V) | 3.45 | 3.28 | 2.95 |
| 265965CX | 27C16-150 | DIP-24 | 2k x 8 150ns UVPROM (5V) | 7.15 | 5.49 | 4.69 |
| 40096CX | 2732 | DIP-24 | 4k x 8 450ns (25V) | 6.49 | 5.49 | 4.10 |
| 39765CX | 27C32 | DIP-24 | 4k x 8 450ns (25V) CMOS | 5.49 | 4.15 | 2.89 |
| 40133CX | 2732A-45 | DIP-24 | 4k x 8 450ns (21V) | 3.99 | 3.69 | 3.29 |
| 33591CX | TMS2532A | DIP-24 | 4k x 8 450ns (21V) | 3.95 | 3.55 | 3.19 |
| 114876CX | 2732B | DIP-24 | 4k x 8 450ns (12.5V) | 4.15 | 3.75 | 3.39 |
| 40125CX | 2732A-25 | DIP-24 | 4k x 8 250ns (21V) | 4.99 | 4.49 | 3.99 |
| 40109CX | 2732A-20 | DIP-24 | 4k x 8 200ns (21V) | 6.49 | 5.99 | 5.49 |
| 265990CX | 27C32-200 | DIP-24 | 4k x 8 200ns UVPROM (5V) | 5.39 | 5.15 | 4.61 |
| 266001CX | 27C32-150 | DIP-24 | 4k x 8 150ns UVPROM (5V) | 4.39 | 4.19 | 3.59 |
| 40205CX | 2764-25 | DIP-28 | 8k x 8 250ns (21V) | 5.25 | 4.75 | 4.25 |
| 40248CX | 2764A-25 | DIP-28 | 8k x 8 250ns (12.5V) | 3.49 | 3.15 | 2.85 |
| 39845CX | 27C64-25 | DIP-28 | 8k x 8 250ns (12.5V) CMOS | 4.49 | 4.09 | 3.79 |
| 40192CX | 2764-20 | DIP-28 | 8k x 8 200ns (21V) | 5.25 | 4.75 | 4.25 |
| 40230CX | 2764A-20 | DIP-28 | 8k x 8 200ns (12.5V) | 4.49 | 4.05 | 3.65 |
| 74608CX | 27C64-20 | DIP-28 | 8k x 8 200ns (12.5V) CMOS | 4.69 | 4.29 | 3.79 |
| 39829CX | 27C64-15 | DIP-28 | 8k x 8 150ns (12.5V) CMOS | 3.79 | 3.49 | 2.99 |
| 105304CX | 27C64-12 | DIP-28 | 8k x 8 120ns (12.5V) CMOS | 6.49 | 5.99 | 5.49 |
| 266036CX | 27C64-100 | DIP-28 | 8k x 8 100ns UVPROM (5V) | 4.05 | 3.59 | 2.69 |
| 266044CX | 27C64-70 | DIP-28 | 8k x 8 70ns UVPROM (5V) | 5.39 | 5.19 | 4.39 |
| 266052CX | CY7C264-55WC | DIP-24 | 8k x 8 55ns UVPROM (5V) | 6.49 | 5.99 | 5.49 |
| 39933CX | 27128-25 | DIP-28 | 16k x 8 250ns (21V) | 5.95 | 5.09 | 3.85 |
| 39984CX | 27128A-25 | DIP-28 | 16k x 8 250ns (12.5V) | 4.49 | 4.05 | 3.69 |
| 39685CX | 27C128-25 | DIP-28 | 16k x 8 250ns (12.5V) CMOS | 3.99 | 3.59 | 3.25 |
| 39968CX | 27128A-20 | DIP-28 | 16k x 8 200ns (12.5V) | 4.69 | 4.19 | 3.79 |
| 101101CX | 27C128-20 | DIP-28 | 16k x 8 200ns (12.5V) CMOS | 4.69 | 4.29 | 3.79 |
| 39950CX | 27128A-15 | DIP-28 | 16k x 8 150ns (12.5V) | 4.49 | 3.95 | 3.55 |
| 39677CX | 27C128-15 | DIP-28 | 16k x 8 150ns (12.5V) CMOS | 4.29 | 3.85 | 3.45 |
| 87935CX | 27C128-12 | DIP-28 | 16k x 8 120ns (12.5V) CMOS | 4.49 | 3.99 | 3.59 |
| 40061CX | 27256-25 | DIP-28 | 32k x 8 250ns (12.5V) | 3.15 | 2.95 | 2.65 |
| 39731CX | 27C256-25 | DIP-28 | 32k x 8 250ns (12.5V) CMOS | 3.15 | 2.95 | 2.65 |
| 40045CX | 27256-20 | DIP-28 | 32k x 8 200ns (12.5V) | 3.75 | 3.35 | 3.05 |
| 39722CX | 27C256-20 | DIP-28 | 32k x 8 200ns (12.5V) CMOS | 2.59 | 2.49 | 2.19 |
| 40037CX | 27256-15 | DIP-28 | 32k x 8 150ns (12.5V) | 3.25 | 3.09 | 2.75 |
| 39714CX | 27C256-15 | DIP-28 | 32k x 8 150ns (12.5V) CMOS | 2.05 | 1.75 | 1.55 |
| 65904CX | 27C256-12 | DIP-28 | 32k x 8 120ns (12.5V) CMOS | 2.05 | 1.90 | 1.75 |
| 112740CX | 27C256-10 | DIP-28 | 32k x 8 100ns (12.5V) CMOS | 3.35 | 3.15 | 2.85 |
| 140476CX | 27C256-70 | DIP-28 | 32k x 8 70ns (12.5V) CMOS | 3.59 | 3.39 | 3.09 |
| 266079CX | 27C256-55 | DIP-28 | 32k x 8 55ns UVPROM (5V) | 4.99 | 4.75 | 4.25 |
| 40168CX | 27512-25 | DIP-28 | 64k x 8 250ns (12.5V) | 3.79 | 3.45 | 3.15 |
| 39802CX | 27C512-25 | DIP-28 | 64k x 8 250ns (12.5V) CMOS | 4.75 | 4.39 | 3.95 |
| 40150CX | 27512-20 | DIP-28 | 64k x 8 200ns (12.5V) | 2.75 | 2.45 | 2.25 |
| 39790CX | 27C512-20 | DIP-28 | 64k x 8 200ns (12.5V) CMOS | 3.15 | 2.95 | 2.65 |
| 39781CX | 27C512-15 | DIP-28 | 64k x 8 150ns (12.5V) CMOS | 2.09 | 1.99 | 1.79 |
| 39773CX | 27C512-12 | DIP-28 | 64k x 8 120ns (12.5V) CMOS | 2.09 | 1.79 | 1.49 |
| 131959CX | 27C512-10 | DIP-28 | 64k x 8 100ns (12.5V) CMOS | 3.39 | 3.15 | 2.85 |
| 175206CX | 27C512-90 | DIP-28 | 64k x 8 90ns (12.5V) CMOS | 3.45 | 3.25 | 2.95 |
| 203625CX | 27C512-70 | DIP-28 | 64k x 8 70ns (12.5V) CMOS | 2.89 | 2.49 | 1.89 |
| 203617CX | 27C512-45 | DIP-28 | 64k x 8 45ns (12.5V) CMOS | 4.09 | 3.79 | 3.49 |
| 118148CX | 27C1024-15 | DIP-40 | 64k x 16 150ns (12.5V) CMOS | 5.95 | 5.55 | 4.99 |
| 203641CX | 27C1024-12 | DIP-40 | 64k x 16 120ns (12.5V) CMOS | 5.29 | 4.59 | 4.19 |
| 203633CX | 27C1024-80 | DIP-40 | 64k x 16 80ns (12.5V) CMOS | 4.99 | 4.49 | 3.99 |
| 39669CX | 27C010-20 | DIP-32 | 128k x 8 200ns (12.5V) CMOS | 2.39 | 2.29 | 1.99 |
| 39651CX | 27C010-15 | DIP-32 | 128k x 8 150ns (12.5V) CMOS | 2.59 | 2.19 | 1.89 |
| 74624CX | 27C010-12 | DIP-32 | 128k x 8 120ns (12.5V) CMOS | 3.59 | 3.19 | 2.79 |
| 79231CX | 27C010-10 | DIP-32 | 128k x 8 100ns (12.5V) CMOS | 3.49 | 2.97 | 2.22 |
| 137699CX | 27C010-80 | DIP-32 | 128k x 8 80ns (12.5V) CMOS | 5.12 | 4.61 | 4.09 |
| 146149CX | 27C010-70 | DIP-32 | 128k x 8 70ns (12.5V) CMOS | 2.39 | 2.15 | 2.05 |
| 137701CX | 27C010-45 | DIP-32 | 128k x 8 45ns (12.5V) CMOS | 6.09 | 5.49 | 4.99 |
| 65681CX | 27C020-20 | DIP-32 | 256k x 8 200ns (12.5V) CMOS | 5.63 | 5.22 | 4.71 |
| 65699CX | 27C020-15 | DIP-32 | 256k x 8 150ns (12.5V) CMOS | 5.29 | 4.99 | 4.49 |
| 78852CX | 27C020-12 | DIP-32 | 256k x 8 120ns (12.5V) CMOS | 5.29 | 4.89 | 4.49 |

EPROM (Continued)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|------------------------------|--------|--------|--------|
| 156267CX | 27C020-10 | DIP-32 | 256k x 8 100ns (12.5V) CMOS | \$3.85 | \$3.49 | \$3.35 |
| 203650CX | 27C020-80 | DIP-32 | 256k x 8 80ns (12.5V) CMOS | 7.15 | 6.09 | 4.59 |
| 266108CX | 27C020-70 | DIP-32 | 256k x 8 70ns UVPROM (5V) | 5.55 | 5.31 | 4.79 |
| 127933CX | 27C4096-12 | DIP-40 | 256k x 16 120ns (12.5V) CMOS | 9.22 | 8.60 | 7.85 |
| 85462CX | 27C040-15 | DIP-32 | 512k x 8 150ns (12.5V) CMOS | 6.59 | 6.09 | 5.59 |
| 102293CX | 27C040-12 | DIP-32 | 512k x 8 120ns (12.5V) CMOS | 6.59 | 6.09 | 5.59 |
| 111780CX | 27C040-10 | DIP-32 | 512k x 8 100ns (12.5V) CMOS | 6.92 | 6.41 | 5.90 |
| 203676CX | 27C040-80 | DIP-32 | 512k x 8 80ns (12.5V) CMOS | 7.13 | 6.48 | 5.89 |
| 266132CX | 27C040-55 | DIP-32 | 512k x 8 55ns UVPROM (5V) | 12.09 | 11.25 | 10.39 |
| 203668CX | 27C040-45 | DIP-32 | 512k x 8 45ns (12.5V) CMOS | 12.65 | 10.75 | 8.09 |
| 140003CX | 27C080-12 | DIP-32 | 1M x 8 120ns (12.5V) CMOS | 12.99 | 11.99 | 10.99 |
| 265842CX | 27C800-12 | DIP-42 | 1M x 8 120ns UVPROM (5V) | 12.59 | 11.79 | 10.89 |
| 156275CX | 27C080-10 | DIP-32 | 1M x 8 100ns (12.5V) CMOS | 12.91 | 10.97 | 8.23 |
| 203684CX | 27C080-90 | DIP-32 | 1M x 8 90ns (12.5V) CMOS | 12.91 | 11.99 | 10.96 |
| 156283CX | 27C160-10 | DIP-42 | 2M x 8 100ns (12.5V) CMOS | 20.45 | 18.95 | 17.31 |

See EPROM programmers and erasers on pages 224 & 225

EPROM Accessories

| Part No. | Cross Ref. | Description | 1 | 5 |
|----------|------------|--|--------|--------|
| 206922CX | EP1D | 1.1" x 0.46" EPROM & DIP window labels UV opaque, accepts ink or pencil (168 labels per pack) | \$6.95 | \$6.25 |
| 13864CX | CF2 | Conductive foam (12" x 24" x .25") hard black | 9.29 | 8.35 |
| 66042CX | DE1 | UVP portable EPROM eraser, pg 225 | 54.95 | 49.95 |
| 15712CX | DE4 | 8-chip UV-EPROM eraser, pg 225 | 119.95 | 109.95 |

EEPROM

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|---------|----------------------------|--------|--------|--------|
| 276584CX | 24C00 | SOIC-8 | 16 x 8 Serial | \$0.26 | \$0.25 | \$0.23 |
| 276568CX | 24C00 | DIP-8 | 16 x 8 Serial | .26 | .25 | .23 |
| 200627CX | 24C44 | DIP-8 | 16 x 16 Serial (CMOS) | 1.99 | 1.69 | 1.27 |
| 276955CX | 93C46 | SOIC-8 | 64 x 16 3-wire serial | .37 | .34 | .29 |
| 102058CX | 93C46 | DIP-8 | 64 x 16 Serial (5V) | .35 | .30 | .25 |
| 276621CX | 24C01 | SOIC-8 | 128 x 8 2-wire serial | .29 | .27 | .20 |
| 276592CX | 24C01 | DIP-8 | 128 x 8 2-wire serial | .36 | .29 | .25 |
| 276971CX | 93C56 | SOIC-8 | 128 x 16 3-wire serial | .54 | .50 | .41 |
| 108855CX | 93C56 | DIP-8 | 128 x 16 Serial (5V) | .45 | .38 | .31 |
| 276630CX | 24C02 | SOIC-8 | 256 x 8 2-wire serial | .37 | .36 | .27 |
| 108839CX | 24C02P | DIP-8 | 256 x 8 Serial (CMOS) | .47 | .43 | .35 |
| 276980CX | 93C66 | SOIC-8 | 256 x 16 3-wire serial | .37 | .36 | .32 |
| 200598CX | 93C66 | DIP-8 | 256 x 16 Serial (5V) | .69 | .62 | .55 |
| 276648CX | 24C04 | SOIC-8 | 512 x 8 2-wire serial | .34 | .27 | .24 |
| 108847CX | 24C04P | DIP-8 | 512 x 8 Serial (CMOS) | .89 | .79 | .69 |
| 276998CX | 93C76 | SOIC-8 | 512 x 16 Microwire serial | .50 | .48 | .45 |
| 277000CX | 93C76 | DIP-8 | 512 x 16 Microwire serial | .58 | .55 | .52 |
| 276644CX | 24C08 | SOIC-8 | 1k x 8 2-wire serial | .32 | .31 | .29 |
| 200547CX | 24C08-10 | DIP-8 | 1k x 8 Serial (CMOS) | .89 | .79 | .69 |
| 277018CX | 93C86 | SOIC-8 | 1k x 16 Microwire serial | .51 | .39 | .36 |
| 200601CX | 93C86 | DIP-8 | 1k x 16 Serial (5V) | .69 | .59 | .44 |
| 276681CX | 24C16 | SOIC-8 | 2k x 8 2-wire serial | .42 | .42 | .37 |
| 200555CX | 24C16-10 | DIP-8 | 2k x 8 Serial (CMOS) | 1.19 | 1.05 | .79 |
| 276699CX | 28C16 | SOIC-24 | 2k x 8 Parallel | 2.35 | 1.91 | 1.69 |
| 74691CX | 28C16A-25 | DIP-24 | 2k x 8 250ns (5V) CMOS | 3.99 | 3.69 | 3.39 |
| 276710CX | 28C17 | SOIC-8 | 2k x 8 Parallel | 3.95 | 2.69 | 2.45 |
| 276701CX | 28C17 | DIP-8 | 2k x 8 Parallel | 2.15 | 1.70 | 1.50 |
| 40416CX | 2817A-25 | DIP-28 | 2k x 8 250ns 5V read/write | 7.95 | 7.15 | 6.49 |
| 276728CX | 24C32 | SOIC-8 | 4k x 8 2-wire serial | .56 | .55 | .48 |
| 200563CX | 24C32-10 | DIP-8 | 4k x 8 Serial (CMOS) | 1.79 | 1.69 | 1.39 |
| 276744CX | 24C64 | SOIC-8 | 8k x 8 2-wire serial | .66 | .64 | .57 |
| 200619CX | 24C65 | DIP-8 | 8k x 8 Serial (CMOS) | 1.89 | 1.69 | 1.49 |
| 276752CX | 28C64 | SOIC-28 | 8k x 8 EEPROM | 3.69 | 3.49 | 3.43 |
| 74827CX | 28C64A-25 | DIP-28 | 8k x 8 250ns (5V) CMOS | 4.49 | 4.05 | 3.65 |
| 40475CX | 2865A | DIP-28 | 8k x 8 250ns 5V read/write | 4.95 | 4.49 | 4.05 |
| 276787CX | 24C128 | SOIC-8 | 16K x 8 2-wire serial | 1.05 | .99 | .89 |
| 200571CX | 24C128-10 | DIP-8 | 16k x 8 Serial (CMOS) | 1.79 | 1.49 | 1.33 |
| 276808CX | 24C256 | SOIC-8 | 32k x 8 2-wire serial | 1.45 | 1.41 | 1.25 |
| 200580CX | 24C256-10 | DIP-8 | 32k x 8 Serial (CMOS) | 3.19 | 2.39 | 2.15 |

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EEPROM (Continued)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|---------|--------------------------|--------|--------|--------|
| 276816CX | 28C256 | SOIC-28 | 32k x 8 Paged parallel | \$8.49 | \$7.69 | \$7.05 |
| 74878CX | 28C256-25 | DIP-28 | 32k x 8 250ns CMOS | 8.75 | 7.45 | 5.59 |
| 74843CX | 28C256-15 | DIP-28 | 32k x 8 150ns CMOS | 8.99 | 6.89 | 6.19 |
| 276875CX | 24C512 | SOIC-8 | 64k x 8 2-wire serial | 2.65 | 2.51 | 2.29 |
| 276832CX | 24C512 | DIP-8 | 64k x 8 2-wire serial | 2.59 | 2.38 | 2.05 |
| 276891CX | 28C512 | DIP-32 | 64k x 8 Parallel | 13.15 | 10.65 | 9.35 |
| 276904CX | 28C512 | PLCC-32 | 64k x 8 Parallel | 13.15 | 10.65 | 9.35 |
| 276921CX | 24C1024 | SOIC-8 | 128k x 8 2-wire serial | 6.95 | 5.39 | 4.99 |
| 276912CX | 24C1024 | DIP-8 | 128k x 8 2-wire serial | 13.89 | 12.49 | 7.85 |
| 276939CX | 28C010 | DIP-32 | 128k x 8 Paged parallel | 24.79 | 23.55 | 21.19 |
| 276947CX | 28C010 | PLCC-32 | 128k x 8 Paged parallel | 24.79 | 23.59 | 21.19 |
| 242253CX | 28C010-15 | DIP-32 | 128k x 8 150ns (5V) CMOS | 29.41 | 28.00 | 27.00 |

OTP/PROM

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|----------------|---------|------------------------------------|--------|--------|--------|
| 48531CX | 74S188 | DIP-16 | 32 x 8 Open collector (27S18) | \$4.35 | \$3.70 | \$2.77 |
| 48717CX | 74S288 | DIP-16 | 32 x 8 Tri-st. (27S19/TBP18S030N) | 7.35 | 6.30 | 5.49 |
| 27844CX | N82S23 | DIP-16 | 32 x 8 PROM (OC) (27S18) | 5.95 | 5.39 | 4.85 |
| 27764CX | N82S123 | DIP-16 | 32 x 8 PROM tri-state (27S19) | 8.95 | 8.50 | 8.09 |
| 48696CX | 74S287 | DIP-16 | 256 x 4 Tri-state (TBP24S10N) | 6.95 | 6.25 | 5.65 |
| 48805CX | 74S387 | DIP-16 | 256 x 4 Open collector (TBP24A10N) | 3.09 | 3.05 | 3.00 |
| 27772CX | N82S126 | DIP-16 | 256 x 4 PROM (OC) (27S20) | 10.95 | 10.39 | 9.85 |
| 27781CX | N82S129 | DIP-16 | 256 x 4 PROM tri-state (27S21) | 7.95 | 6.95 | 6.25 |
| 48910CX | 74S571 | DIP-16 | 512 x 4 Tri-state (27S13) | 5.69 | 5.49 | 5.29 |
| 27799CX | N82S131 | DIP-16 | 512 x 4 PROM tri-state (27S13) | 7.99 | 6.99 | 5.99 |
| 48928CX | 74S573 | DIP-18 | 1k x 4 Tri-state (27S33) | 3.55 | 3.15 | 2.83 |
| 27801CX | N82S137 | DIP-18 | 1k x 4 PROM tri-state (27S33) | 4.95 | 4.25 | 3.19 |
| 27810CX | N82S181 | DIP-24 | 1k x 8 Bipolar PROM tri-state | 6.95 | 5.95 | 5.39 |
| 27828CX | N82S185 | DIP-18 | 2k x 4 PROM tri-state | 4.99 | 4.25 | 3.18 |
| 27836CX | N82S191 | DIP-24 | 2k x 8 PROM tri-state | 6.95 | 6.25 | 5.65 |
| 266212CX | 27C64A-20 | PLCC-32 | 8k x 8 200ns CMOS | 2.19 | 2.09 | 1.69 |
| 266247CX | 27C256-20 | PLCC-32 | 32k x 8 200ns CMOS | 2.19 | 2.09 | 1.89 |
| 266255CX | 27C256-15 | PLCC-32 | 32k x 8 150ns CMOS | 1.25 | 1.15 | 1.05 |
| 266280CX | 27C256-10 | PLCC-32 | 32k x 8 100ns CMOS | 3.99 | 3.57 | 2.75 |
| 266319CX | 27C256-70 | PLCC-32 | 32k x 8 70ns CMOS | 1.29 | 1.09 | .90 |
| 266327CX | 27C256-55 | PLCC-32 | 32k x 8 55ns CMOS | 2.25 | 1.95 | 1.85 |
| 266335CX | 27C512-20 | PLCC-32 | 64k x 8 200ns CMOS | 5.35 | 4.82 | 3.45 |
| 266343CX | 27C512-15 | PLCC-32 | 64k x 8 150ns CMOS | 1.99 | 1.89 | 1.75 |
| 203730CX | 27C512-10 PLCC | PLCC-32 | 64k x 8 100ns (12.5V) CMOS | 2.08 | 1.79 | 1.59 |
| 203692CX | 27C512-0TP | DIP-28 | 64k x 8 100ns (12.5V) CMOS | 2.25 | 1.89 | 1.79 |
| 266351CX | 27C512-70 | PLCC-32 | 64k x 8 70ns CMOS | 2.45 | 2.20 | 1.68 |
| 266386CX | 27C512-55 | PLCC-32 | 64k x 8 55ns CMOS | 2.29 | 1.99 | 1.89 |
| 266394CX | 27C010-20 | PLCC-32 | 128k x 8 200ns CMOS | 2.59 | 2.49 | 2.19 |
| 266790CX | 27C010-15 | PLCC-32 | 128k x 8 150ns CMOS | 1.55 | 1.35 | 1.32 |
| 203705CX | 27C010-10 OTP | DIP-32 | 128k x 8 100ns (12.5V) CMOS | 2.55 | 2.19 | 1.65 |
| 203748CX | 27C010-10 PLCC | PLCC-32 | 128k x 8 100ns (12.5V) CMOS | 1.39 | 1.25 | 1.15 |
| 266802CX | 27C010-70 | PLCC-32 | 128k x 8 70ns CMOS | 2.25 | 2.19 | 1.99 |
| 266811CX | 27C010-55 | PLCC-32 | 128k x 8 55ns CMOS | 2.69 | 2.44 | 2.19 |
| 266888CX | 27C020-15 | PLCC-32 | 256k x 8 150ns CMOS | 3.65 | 3.59 | 3.19 |
| 203713CX | 27C020-10 OTP | DIP-32 | 256k x 8 100ns (12.5V) CMOS | 3.99 | 3.39 | 2.54 |
| 203756CX | 27C020-10 PLCC | PLCC-32 | 256k x 8 100ns (12.5V) CMOS | 3.79 | 3.22 | 2.42 |
| 267101CX | 27C020-70 | PLCC-32 | 256k x 8 70ns CMOS | 3.65 | 3.41 | 3.19 |
| 267135CX | 27C020-55 | PLCC-32 | 256k x 8 55ns CMOS | 3.65 | 3.41 | 3.19 |
| 267160CX | 27C040-15 | PLCC-32 | 512k x 8 150ns CMOS | 6.29 | 6.29 | 6.29 |
| 203764CX | 27C040-10 PLCC | PLCC-32 | 512k x 8 100ns (12.5V) CMOS | 5.49 | 4.67 | 3.50 |
| 203721CX | 27C040-10 OTP | DIP-32 | 512k x 8 100ns (12.5V) CMOS | 3.57 | 3.25 | 2.95 |
| 267186CX | 27C040-70 | PLCC-32 | 512k x 8 70ns CMOS | 4.55 | 4.19 | 4.23 |
| 267194CX | 27C040-55 | PLCC-32 | 512k x 8 55ns CMOS | 4.75 | 4.49 | 4.05 |
| 267303CX | 27C080-10 | PLCC-32 | 1M x 8 100ns CMOS | 10.75 | 8.45 | 7.25 |
| 267320CX | 27C080-55 | PLCC-32 | 1M x 8 55ns CMOS | 9.29 | 8.85 | 7.95 |
| 267389CX | 27C160-10 | PLCC-44 | 2M x 8 100ns CMOS | 16.99 | 15.99 | 13.99 |

Flash Memory

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|---------|-------------------------------|--------|--------|--------|
| 242552CX | 29C512-12 | DIP-32 | 64k x 8 120ns (5V) CMOS | \$4.59 | \$3.69 | \$3.19 |
| 242561CX | 29F512-90 | DIP-32 | 64k x 8 90ns (5V) CMOS | 4.70 | 3.80 | 3.36 |
| 242579CX | 29F512-70 | DIP-32 | 64k x 8 70ns (5V) CMOS | 5.09 | 4.89 | 4.49 |
| 74771CX | 28F010-15 | DIP-32 | 128k x 8 150ns (12V) CMOS | 6.95 | 6.25 | 5.65 |
| 242587CX | 29F010-120 | DIP-32 | 128k x 8 120ns (5V) CMOS | 2.59 | 2.49 | 2.19 |
| 242595CX | 29F010-90 | DIP-32 | 128k x 8 90ns (5V) CMOS | 4.39 | 4.09 | 3.79 |
| 242608CX | 29F010-70 | DIP-32 | 128k x 8 70ns (5V) CMOS | 6.09 | 4.99 | 4.49 |
| 74835CX | 28F020-15 | DIP-32 | 256k x 8 150ns (12V) CMOS | 7.95 | 7.15 | 6.45 |
| 242616CX | 29F020-12 | DIP-32 | 256k x 8 120ns (5V) CMOS | 6.19 | 4.79 | 4.49 |
| 242624CX | 29F020-90 | DIP-32 | 256k x 8 90ns (5V) CMOS | 8.69 | 6.99 | 6.09 |
| 242659CX | 29F040-120 | DIP-32 | 512k x 8 120ns (5V) CMOS | 11.79 | 8.69 | 7.99 |
| 242667CX | 29F040-90 | DIP-32 | 512k x 8 90ns (5V) CMOS | 7.59 | 7.19 | 6.79 |
| 277211CX | 29F800-70 | TSOP-48 | 1M x 8 70ns (5V) top boot | 3.15 | 2.75 | 2.09 |
| 277261CX | 29F800-70 | TSOP-48 | 1M x 8 70ns (5V) bottom boot | 3.15 | 2.75 | 2.09 |
| 277270CX | 29F800-120 | TSOP-48 | 1M x 8 120ns (5V) top boot | 3.55 | 3.45 | 2.99 |
| 277288CX | 29F800-120 | TSOP-48 | 1M x 8 120ns (5V) bottom boot | 3.55 | 3.45 | 2.99 |
| 277309CX | 29F310-70 | TSOP-48 | 2M x 8 70ns (5V) top boot | 4.35 | 2.85 | 2.35 |
| 277368CX | 29F320-70 | TSOP-48 | 4M x 8 70ns (5V) top boot | 8.69 | 7.29 | 4.81 |
| 277405CX | 29F640-110 | TSOP-56 | 8M x 8 110ns (5V) | 12.39 | 11.15 | 10.49 |
| 277448CX | 28F128-150 | TSOP-56 | 16M x 8 150ns (5V) | 21.39 | 16.89 | 13.75 |

Dynamic and Video RAM

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|------------------------------|--------|--------|--------|
| 41339CX | 4116-15 | DIP-16 | 16k x 1 150ns (MM5290J-1R) | \$.99 | \$.89 | \$.80 |
| 41662CX | 4164-150 | DIP-16 | 64k x 1 150ns (MCM6665-15) | .59 | .53 | .48 |
| 41574CX | 41464-10 | DIP-18 | 64k x 4 100ns (HY53C464S-10) | 1.69 | 1.65 | 1.59 |
| 41427CX | 41256-150 | DIP-16 | 256k x 1 150ns (P21256-15) | .69 | .59 | .49 |
| 41398CX | 41256-120 | DIP-16 | 256k x 1 120ns (MB81256-12) | .73 | .65 | .59 |
| 42315CX | 514256P-80 | DIP-20 | 256k x 4 80ns (UPD424256-80) | 2.49 | 2.25 | 2.05 |
| 93374CX | 514256P-70 | DIP-20 | 256k x 4 70ns (TC514256P-70) | 2.79 | 2.49 | 2.19 |
| 128688CX | HM514260 | SOJ | 256k x 16 70ns | 3.39 | 2.88 | 2.16 |
| 42219CX | 511000P-10 | DIP-18 | 1M x 1 100ns (M5M4C1000-10) | 2.25 | 1.99 | 1.79 |

Static RAM

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|---------------|--------|------------------------------------|--------|--------|--------|
| 38931CX | 2111-1 | DIP-18 | 256 x 4 500ns (AM9111APC) | \$1.69 | \$1.44 | \$1.08 |
| 42198CX | 5101 | DIP-22 | 256 x 4 450ns (CMOS) | 7.99 | 7.19 | 6.49 |
| 38957CX | 2114N | DIP-18 | 1k x 4 450ns (9114BPC) | 2.29 | 1.99 | 1.79 |
| 43238CX | 6514 | DIP-18 | 1k x 4 350ns CMOS (M58981P) | 3.95 | 3.65 | 3.35 |
| 38973CX | 2114N-2 | DIP-18 | 1k x 4 200ns (9114EPC) (U214D20) | 2.49 | 2.09 | 1.89 |
| 38981CX | 2114N-2L | DIP-18 | 1k x 4 200ns low power | 2.49 | 2.25 | 2.05 |
| 243475CX | MBM104174A-10 | DIP-24 | 1k x 4 10ns ECL asynchronous | 3.49 | 2.99 | 2.49 |
| 38746CX | 2016-20 | DIP-24 | 2k x 8 200ns (MB8128-20) | 1.39 | .99 | .69 |
| 114260CX | DS1220V-150 | DIP-24 | 2k x 8 150ns, 4.25V WP | 11.95 | 10.95 | 9.85 |
| 25911CX | MK48Z02B-15 | DIP-24 | 2k x 8 150ns (16kB) zero-power RAM | 6.89 | 6.39 | 5.79 |
| 42809CX | 6116P-3 | DIP-24 | 2k x 8 150ns (16kB) CMOS | 1.49 | 1.29 | 1.09 |
| 42753CX | 6116LP-3 | DIP-24 | 2k x 8 150ns (16kB) LP CMOS | 1.95 | 1.75 | 1.59 |
| 38738CX | 2016-12 | DIP-24 | 2k x 8 120ns (AM9128-12) | 1.49 | 1.29 | 1.19 |
| 42796CX | 6116P-2 | DIP-24 | 2k x 8 120ns (16kB) CMOS | 1.59 | 1.39 | 1.29 |
| 42788CX | 6116P-1 | DIP-24 | 2k x 8 100ns (16kB) CMOS | 1.69 | 1.49 | 1.39 |
| 42737CX | 6116LP-1 | DIP-24 | 2k x 8 100ns (16kB) LP CMOS | 1.99 | 1.79 | 1.39 |
| 242675CX | 6116-70 | DIP-24 | 2k x 8 70ns (5V) CMOS async. | 2.09 | 1.99 | 1.89 |
| 242683CX | CY7C128A-45 | DIP-24 | 2k x 8 45ns (5V) CMOS async. | 5.39 | 4.19 | 3.59 |
| 242691CX | CY7C128A-35 | DIP-24 | 2k x 8 35ns (5V) CMOS async. | 4.69 | 3.79 | 3.30 |
| 242704CX | CY7C128A-25 | DIP-24 | 2k x 8 25ns (5V) CMOS async. | 4.69 | 3.79 | 2.99 |
| 242712CX | CY7C128A-15 | DIP-24 | 2k x 8 15ns (5V) CMOS async. | 5.19 | 4.19 | 3.19 |
| 114307CX | DS1225Y-200 | DIP-28 | 8k x 8 200ns, 4.25V WP | 15.95 | 14.49 | 11.65 |
| 114278CX | DS1225AB-150 | DIP-28 | 8k x 8 150ns, 4.62V WP | 17.29 | 14.49 | 9.89 |
| 42930CX | 6264P-12 | DIP-28 | 8k x 8 120ns (64kB) CMOS | 2.65 | 2.39 | 2.15 |
| 42892CX | 6264LP-12 | DIP-28 | 8k x 8 120ns (64kB) LP CMOS | 2.79 | 2.49 | 2.19 |
| 42921CX | 6264P-10 | DIP-28 | 8k x 8 100ns (64kB) CMOS | 2.59 | 2.29 | 1.99 |
| 42884CX | 6264LP-10 | DIP-28 | 8k x 8 100ns (64kB) LP CMOS | 2.75 | 2.49 | 2.25 |
| 85121CX | 6264LP-70 | DIP-28 | 8k x 8 70ns (64kB) LP CMOS | 3.39 | 2.99 | 2.19 |
| 242721CX | 6264-55 | DIP-28 | 8k x 8 55ns (5V) CMOS async. | 3.29 | 2.59 | 2.09 |
| 242333CX | CY7C185-35 | DIP-28 | 8k x 8 35ns (5V) CMOS async. | 2.89 | 2.29 | 1.79 |
| 242341CX | CY7C185-25 | DIP-28 | 8k x 8 25ns (5V) CMOS async. | 2.89 | 2.29 | 1.79 |

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Static RAM (Continued)



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|---------------|--------|---|--------|--------|--------|
| 242350CX | 7C185-20 | DIP-28 | 8k x 8 20ns 5V asynchronous | \$2.89 | \$2.29 | \$1.79 |
| 114323CX | DS1230Y-150 | DIP-28 | 32k x 8 150ns, 4.37V WP | 19.95 | 18.95 | 15.15 |
| 41988CX | 43256-12L | DIP-28 | 32k x 8 120ns low power (NEC) | 4.99 | 4.49 | 4.09 |
| 42850CX | 62256LP-12 | DIP-28 | 32k x 8 120ns low power CMOS | 3.89 | 3.49 | 3.19 |
| 177113CX | DS1230Y-100 | DIP-28 | 32k x 8 100ns, 4.37V WP | 17.75 | 13.75 | 12.85 |
| 41970CX | 43256-10L | DIP-28 | 32k x 8 100ns low power (NEC) | 5.49 | 4.99 | 4.49 |
| 42833CX | 62256LP-10 | DIP-28 | 32k x 8 100ns low power CMOS | 4.19 | 3.55 | 2.65 |
| 42876CX | 62256LP-85 | DIP-28 | 32k x 8 85ns low power (CMOS) | 1.99 | 1.99 | 1.99 |
| 82472CX | 62256LP-70 | DIP-28 | 32k x 8 70ns low power CMOS | 5.49 | 4.99 | 4.49 |
| 279814CX | 62256S-70 | DIP-28 | 32k x 8 70ns 5V CMOS | 1.59 | 1.48 | 1.36 |
| 242499CX | DS1230Y-70 | DIP-28 | 32k x 8 70ns nonvol. 4.5V WP | 16.59 | 15.29 | 13.99 |
| 242376CX | M5M5258P-35 | DIP-28 | 32k x 8 35ns 5V asynchronous | 1.99 | 1.59 | 1.19 |
| 279822CX | CY7C199-35V | DIP-28 | 32k x 8 35ns | 1.75 | 1.39 | 1.09 |
| 279849CX | CY7C199-20V | DIP-28 | 32k x 8 20ns | 1.75 | 1.39 | 1.05 |
| 75037CX | UM61M256K-15 | DIP-28 | 32k x 8 15ns hi speed CMOS (.3"W) | 3.39 | 2.99 | 2.69 |
| 279857CX | 62256S-15 | DIP-28 | 32k x 8 15ns | 1.49 | 1.24 | .92 |
| 279865CX | 62256S-12 | DIP-28 | 32k x 8 12ns | 1.85 | 1.49 | 1.12 |
| 103982CX | 628128LP-85 | DIP-32 | 128k x 8 85ns low power CMOS | 8.49 | 7.49 | 6.79 |
| 131810CX | 628128LP-70 | DIP-32 | 128k x 8 70ns low power CMOS | 8.99 | 7.39 | 6.69 |
| 279873CX | 628128S-70 | DIP-32 | 128k x 8 12ns | 2.49 | 2.19 | 1.89 |
| 279911CX | CY7C109B-12V | DIP-32 | 128k x 8 12ns | 2.99 | 2.55 | 1.99 |
| 280014CX | 625616S-70 | DIP-32 | 256k x 16 70ns | 7.39 | 6.89 | 6.35 |
| 280031CX | CY7C1041B-15V | SOJ-44 | 256k x 16 15ns | 8.09 | 7.09 | 6.99 |
| 157358CX | 628512LP-70 | DIP-32 | 512k x 8 70ns low power CMOS | 18.99 | 16.99 | 16.19 |
| 280049CX | 628512S-70 | DIP-32 | 512k x 8 70ns | 3.45 | 3.25 | 3.05 |
| 280065CX | CY7C1049B-20V | SOJ-36 | 512k x 8 20ns | 8.05 | 7.15 | 6.45 |

Zilog Flash MCUs



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|----------------|---------|--------------------------------------|---------|---------|--------|
| 280268CX | Z8F1601PM020SC | DIP-40 | 16kB ROM, 2kB RAM, 31 I/O, A/D | \$13.25 | \$11.95 | \$7.19 |
| 280276CX | Z8F1602VS020SC | DIP-40 | 16kB ROM, 2kB RAM, 31 I/O, A/D | 7.25 | 7.25 | 7.25 |
| 280284CX | Z8F1602VS020SC | PLCC-68 | 16kB ROM, 2kB RAM, 46 I/O, A/D | 10.69 | 9.65 | 7.53 |
| 280292CX | Z8F2401PM020SC | DIP-40 | 24kB ROM, 2kB RAM, 31 I/O, A/D | 15.29 | 13.79 | 10.36 |
| 280305CX | Z8F2401VNO20SC | PLCC-44 | 24kB ROM, 2kB RAM, 31 I/O, A/D | 15.29 | 13.79 | 8.29 |
| 280313CX | Z8F2402VS020SC | PLCC-68 | 24kB ROM, 2kB RAM, 46 I/O, A/D | 15.95 | 14.35 | 8.64 |
| 280321CX | Z8F3201PM020SC | DIP-40 | 32kB ROM, 2kB RAM, 31 I/O, A/D | 16.35 | 14.69 | 8.85 |
| 280330CX | Z8F3201VNO20SC | PLCC-44 | 32kB ROM, 2kB RAM, 31 I/O, A/D | 16.35 | 14.69 | 8.85 |
| 280348CX | Z8F3202VS020SC | PLCC-68 | 32kB ROM, 2kB RAM, 46 I/O, A/D | 16.95 | 15.29 | 9.19 |
| 280356CX | Z8F4801PM020SC | DIP-40 | 48kB ROM, 4kB RAM, 31 I/O, A/D | 18.35 | 16.55 | 9.94 |
| 280364CX | Z8F4801VNO20SC | PLCC-44 | 48kB ROM, 4kB RAM, 31 I/O, A/D | 18.35 | 16.55 | 9.94 |
| 280372CX | Z8F4802VS020SC | PLCC-68 | 48kB ROM, 4kB RAM, 46 I/O, A/D | 18.99 | 17.15 | 10.29 |
| 280381CX | Z8F6401PM020SC | DIP-40 | 64kB ROM, 4kB RAM, 46 I/O, A/D | 20.39 | 18.35 | 11.05 |
| 280399CX | Z8F6401VNO20SC | PLCC-44 | 64kB ROM, 4kB RAM, 46 I/O, A/D | 20.39 | 18.35 | 11.05 |
| 280401CX | Z8F6402VS020SC | PLCC-68 | 64kB ROM, 4kB RAM, 46 I/O, A/D | 21.05 | 18.95 | 11.39 |

Z8 OTP MCUs



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|-----------------|---------|--|--------|--------|--------|
| 281228CX | Z86E3016PSC | DIP-28 | RAM/ROM Protect, 24 I/O lines | \$6.59 | \$4.99 | \$4.15 |
| 281236CX | Z86E3016VSC | PLCC-28 | RAM/ROM Protect, 24 I/O lines | 6.59 | 4.99 | 4.15 |
| 281252CX | Z86E0812SSC1866 | SOIC-18 | ROM protect, 14 I/O lines | 3.99 | 2.99 | 2.23 |
| 281279CX | Z86E0812PSC1866 | DIP-18 | ROM protect, 14 I/O lines | 3.99 | 2.99 | 2.25 |
| 281287CX | Z86E0812PEC | DIP-18 | ROM protect, 14 I/O lines | 4.35 | 3.29 | 2.45 |
| 281295CX | Z86E0208SSC1925 | SOIC-18 | ROM protect, 14 I/O lines, 1 cntnr/timer ... | 1.89 | 1.42 | .87 |

Zilog Z80 MPUs



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|--------------|---------|--|--------|--------|--------|
| 35561CX | Z80 | DIP-40 | 2.5MHz CPU (MK3880N/780C) | \$1.39 | \$1.19 | \$1.09 |
| 35596CX | Z80A | DIP-40 | 4MHz CPU (MK3880N-4/780C-1) | 1.99 | 1.79 | 1.59 |
| 35609CX | Z80A-CTC | DIP-28 | 4MHz counter timer circuit (MK3882-4) .. | 1.99 | 1.79 | 1.59 |
| 35625CX | Z80A-DART | DIP-40 | 4MHz dual asynchronous receiver/trans. . | 3.49 | 3.19 | 2.89 |
| 35641CX | Z80A-PIO | DIP-40 | 4MHz parallel I/O interf. contr. (MK3881-4) | 1.49 | 1.29 | 1.15 |
| 35668CX | Z80A-SIO/I/O | DIP-40 | 4MHz serial I/O (Tx/CB & Rx/CB bond.) MK3884-4 | 2.19 | 1.79 | 1.59 |
| 35705CX | Z80B | DIP-40 | 6MHz CPU (MK3880N-6) | 2.59 | 2.39 | 2.09 |
| 280410CX | Z8018006PSC | DIP-64 | Z180 MPU, MMU, DMA, UART, INTC | 9.29 | 7.05 | 6.29 |
| 280428CX | Z8018006VSC | PLCC-68 | Z180 MPU, MMU, DMA, UART, INTC | 9.29 | 7.05 | 6.29 |

Zilog Z80 MPUs (Continued)



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|-------------|---------|---|--------|--------|--------|
| 280436CX | Z8018008PSC | DIP-64 | Z180 MPU, MMU, DMA, UART, INTC | \$9.69 | \$7.35 | \$6.29 |
| 280444CX | Z8018008VSC | PLCC-68 | Z180 MPU, MMU, DMA, UART, INTC | 6.39 | 5.85 | 4.99 |
| 280452CX | Z8018010PSC | DIP-64 | Z180 MPU, MMU, DMA, UART, INTC | 7.39 | 6.85 | 5.85 |
| 280461CX | Z8018010VSC | PLCC-68 | Z180 MPU, MMU, DMA, UART, INTC | 11.29 | 8.55 | 7.35 |
| 280479CX | Z8S18020PSC | DIP-64 | Z180 MPU, MMU, DMA, UART, INTC | 16.15 | 14.55 | 10.09 |
| 280487CX | Z8S18020VSC | PLCC-68 | Z180 MPU, MMU, DMA, UART, INTC | 12.95 | 9.79 | 8.05 |
| 280495CX | Z8S18033VSC | PLCC-68 | Z180 MPU, MMU, DMA, UART, INTC | 9.55 | 9.35 | 9.09 |
| 35781CX | Z84C00-4 | DIP-40 | 4MHz CPU (Z84C0004PEC) CMOS | 4.15 | 3.49 | 2.55 |
| 280508CX | Z84C0006VEC | PLCC-44 | Z80 CPU with 3 mode int., 16 regs. | 3.09 | 2.79 | 2.39 |
| 280516CX | Z84C0008PEC | DIP-40 | Z80 CPU with 3 mode int., 16 regs. | 3.25 | 2.99 | 2.59 |
| 280524CX | Z84C0008VEC | PLCC-44 | Z80 CPU with 3 mode int., 16 regs. | 5.65 | 5.05 | 3.85 |
| 280532CX | Z84C0010PEC | DIP-40 | Z80 CPU with 3 mode int., 16 regs. | 3.25 | 2.99 | 2.59 |
| 280541CX | Z84C0010VEC | PLCC-44 | Z80 CPU with 3 mode int., 16 regs. | 4.89 | 3.69 | 3.15 |
| 280559CX | Z84C0020VEC | PLCC-44 | Z80 CPU with 3 mode int., 16 regs. | 15.35 | 13.79 | 9.55 |
| 280567CX | Z84C4008PEC | DIP-40 | Dual data ch. communication interface ... | 7.25 | 6.65 | 5.69 |
| 280575CX | Z84C9010VSC | PLCC-84 | Serial/parallel I/O counter/timer (KIO) ... | 18.99 | 17.15 | 11.86 |
| 35799CX | Z8530 | DIP-40 | 2MHz serial communications controller ... | 2.49 | 1.79 | 1.19 |
| 281308CX | Z85C3016PSC | DIP-40 | Serial communications controller | 13.79 | 10.45 | 8.37 |
| 61786CX | Z85C3008PSC | DIP-40 | Serial communications controller | 10.39 | 9.33 | 6.47 |
| 281316CX | Z85C3008VSC | PLCC-44 | Serial communications controller | 8.19 | 6.21 | 5.25 |
| 281324CX | Z8523016VSC | PLCC-44 | Enhanced serial comm. controller | 15.75 | 14.45 | 13.96 |

6500 Series/Commodore



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|--|--------|--------|--------|
| 43191CX | 6502 | DIP-40 | MPU with internal clock (1MHz) | \$7.95 | \$6.95 | \$6.25 |
| 43166CX | 65C02 | DIP-40 | MPU with internal clock (CMOS) | 6.95 | 5.25 | 3.65 |
| 43254CX | 6522 | DIP-40 | VIA (versatile interface adapter) 1MHz .. | 2.39 | 2.15 | 1.94 |
| 43297CX | 6532 | DIP-40 | 128 x 8 RAM, I/O timer array | 7.95 | 6.99 | 6.49 |
| 43318CX | 6551 | DIP-28 | ACIA (asynch. comm. interface adptr) | 3.95 | 3.49 | 3.15 |

6800/68000 Series



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|-----------------|---------|--|--------|--------|--------|
| 43481CX | 6800 | DIP-40 | 8-bit MCU | \$6.95 | \$5.25 | \$3.65 |
| 43502CX | 6802 | DIP-40 | 8-bit MPU with clock and RAM (1MHz) .. | 8.50 | 7.65 | 6.89 |
| 43529CX | 6803 | DIP-40 | 8-bit MCU with 128k RAM | 7.79 | 6.99 | 6.29 |
| 43537CX | MC6808 | DIP-40 | 8-bit MPU with clock and 128k RAM | 8.95 | 8.06 | 7.25 |
| 43545CX | 6809E | DIP-40 | MPU with external clock (1MHz) | 3.95 | 3.59 | 3.25 |
| 43561CX | 6810 | DIP-24 | 128x8 static RAM (1MHz) | 1.95 | 1.69 | 1.49 |
| 43596CX | 6821 | DIP-40 | Peripheral interface adapter (1MHz) | 3.95 | 3.59 | 3.25 |
| 43414CX | 68B21 | DIP-40 | Peripheral interface adapter (2MHz) | 4.95 | 4.49 | 4.05 |
| 43617CX | 6840 | DIP-28 | Programmable timer (1MHz) | 2.49 | 2.25 | 1.99 |
| 43633CX | 6850 | DIP-24 | Asynch. comm. int. adapter (ACIA) | 2.39 | 2.09 | 1.89 |
| 25304CX | MC68000L8 | DIP-64 | MPU 16-bit (8MHz) | 8.95 | 7.95 | 7.25 |
| 25291CX | MC68000L10 | DIP-64 | MPU 16-bit (10MHz) | 14.95 | 11.20 | 7.85 |
| 25355CX | MC68701 | DIP-40 | 8-bit EPROM MPU w/ 128B RAM & I/O | 15.95 | 13.95 | 12.55 |
| 25363CX | MC68705P3S | DIP-28 | 8-bit EPROM MPU w/ 112B RAM & I/O | 24.95 | 22.95 | 20.65 |
| 25371CX | MC68705U3S | DIP-40 | 8-bit EPROM MPU w/ 112B RAM & I/O | 29.95 | 25.49 | 19.09 |
| 248591CX | MC68HC11E0CFN2 | PLCC-52 | MCU w/ 512 EPROM & 38 I/O, A/D | 10.95 | 9.85 | 8.87 |
| 248604CX | MC68HC11E1CFN2 | PLCC-52 | MCU w/ 512 EPROM & 38 I/O, A/D | 8.85 | 7.25 | 6.55 |
| 191863CX | MC68HC11E1CP2 | DIP-48 | MCU w/ A/D converter (512B RAM) | 15.95 | 12.95 | 9.95 |
| 248583CX | MC68HC11F1CFN3 | PLCC-68 | MCU w/ 512 EPROM & 30 I/O, A/D | 9.99 | 7.59 | 7.15 |
| 248647CX | MC68HC705C8ACFN | PLCC-44 | MCU, OTP 8k ROM, 31 I/O | 7.39 | 5.45 | 4.99 |
| 108919CX | MC68HC705C8P | DIP-40 | MCU, OTP 8k ROM, 24 I/O lines | 7.29 | 6.29 | 5.39 |
| 132484CX | MC68HC705C8S | DIP-40 | MCU, 8k bytes, EPROM | 38.95 | 34.95 | 31.55 |
| 248639CX | MC68HC705J1ACDW | SOIC-20 | MCU, OTP 1.2k ROM, 14 I/O | 3.45 | 3.09 | 2.79 |
| 132530CX | MC68HC705J1ACP | DIP-20 | MCU, OTP 1.0k ROM, 14 I/O | 2.09 | 1.89 | 1.79 |
| 108927CX | MC68HC705K1P | DIP-16 | MCU, OTP 504B ROM, 10 I/O timer | 5.52 | 5.35 | 4.95 |
| 248612CX | MC68HC705P6ACP | DIP-28 | MCU, OTP 4.5k ROM, 21 I/O A/D | 3.95 | 2.75 | 2.49 |
| 248621CX | MC68HC705P6ADW | SOIC-28 | MCU, OTP 4.5k ROM, 21 I/O A/D | 3.95 | 2.75 | 2.49 |
| 248655CX | MC68HC705C9ACFN | PLCC-44 | MCU, OTP 16k ROM, 31 I/O | 11.75 | 10.55 | 9.50 |
| 248567CX | MC68HC711D3CFN2 | PLCC-44 | MCU, OTP 4k ROM, 26 I/O | 10.75 | 9.69 | 8.71 |
| 248575CX | MC68HC711E9CFN2 | PLCC-52 | MCU, OTP 12k ROM, 38 I/O A/D | 13.59 | 10.49 | 9.89 |
| 248356CX | MC68HC908G32CP | DIP-40 | MCU, flash 32k ROM, 33 I/O | 12.69 | 11.39 | 10.29 |
| 248410CX | MC68HC908JB8ADW | SOIC-28 | MCU, flash 8k ROM, 21 I/O USB | 6.69 | 5.99 | 5.45 |
| 248401CX | MC68HC908JB8JP | DIP-20 | MCU, flash 8k ROM, 37 I/O USB | 5.49 | 5.45 | 4.65 |
| 248372CX | MC68HC908JK3CDW | SOIC-20 | MCU, flash 4k ROM, 15 I/O | 3.75 | 3.45 | 3.09 |

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6800/68000 Series (Continued)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|-----------------|----------|----------------------------------|--------|--------|--------|
| 248364CX | MC68HC908JK3CP | DIP-20 | MCU, flash 4k ROM, 15I/O | \$3.75 | \$3.45 | \$3.09 |
| 248399CX | MC68HC908JL3CDW | SOIC-28 | MCU, flash 4k ROM, 23 I/O, A/D | 5.45 | 4.95 | 4.45 |
| 248381CX | MC68HC908JL3CP | DIP-28 | MCU, flash 4k ROM, 23 I/O, A/D | 4.55 | 4.35 | 3.95 |
| 248436CX | MC68HC908KX8CDW | SOIC-16 | MCU, flash 8k ROM, 13 I/O, A/D | 6.29 | 5.69 | 5.15 |
| 248428CX | MC68HC908KX8CP | DIP-16 | MCU, flash 8k ROM, 13 I/O, A/D | 5.65 | 5.45 | 5.05 |
| 248495CX | MC68HC908QT1CDW | SOIC-8 | MCU, flash 1.5k ROM, 6 I/O | 1.89 | 1.45 | 1.30 |
| 248487CX | MC68HC908QT1CP | DIP-8 | MCU, flash 1.5k ROM, 6 I/O | 1.89 | 1.45 | 1.30 |
| 248479CX | MC68HC908QT2CDW | SOIC-8 | MCU, flash 1.5k ROM, 6 I/O, A/D | 2.39 | 2.29 | 2.09 |
| 248461CX | MC68HC908QT2CP | DIP-8 | MCU, flash 1.5k ROM, 6 I/O, A/D | 2.85 | 2.55 | 2.29 |
| 248452CX | MC68HC908QT4CDW | SOIC-8 | MCU, flash 4k ROM, 6 I/O, A/D | 2.69 | 2.05 | 1.85 |
| 248444CX | MC68HC908QT4CP | DIP-8 | MCU, flash 4k ROM, 6 I/O, A/D | 2.69 | 1.65 | 1.43 |
| 248559CX | MC68HC908QY1CDT | TSSOP-16 | MCU, flash 1.5k ROM, 14 I/O | 2.49 | 2.39 | 2.19 |
| 248541CX | MC68HC908QY1CP | DIP-16 | MCU, flash 1.5k ROM, 14 I/O | 2.15 | 1.65 | 1.49 |
| 248532CX | MC68HC908QY2CDT | TSSOP-16 | MCU, flash 1.5k ROM, 13 I/O, A/D | 2.85 | 2.69 | 2.45 |
| 248524CX | MC68HC908QY2CP | DIP-16 | MCU, flash 1.5k ROM, 13 I/O, A/D | 2.55 | 1.95 | 1.75 |
| 248516CX | MC68HC908QY4CDW | TSSOP-16 | MCU, flash 4k ROM, 13 I/O A/D | 2.89 | 2.49 | 2.25 |
| 248508CX | MC68HC908QY4CP | DIP-16 | MCU, flash 4k ROM, 13 I/O A/D | 2.89 | 2.49 | 2.25 |

8000 Series

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|--|--------|--------|--------|
| 51844CX | 8031 | DIP-40 | CPU with 128 x 8 RAM and I/O | \$3.29 | \$2.99 | \$2.69 |
| 51676CX | 80C31 | DIP-40 | CPU with 128 x 8 RAM and I/O (CMOS) | 3.39 | 2.89 | 2.19 |
| 102197CX | 8032 | DIP-40 | 8-bit MCU 256 x 8 RAM | 3.95 | 3.59 | 3.25 |
| 108804CX | 80C32-1 | DIP-40 | 8-bit MCU 256 x 8 RAM (CMOS) | 4.49 | 3.85 | 2.89 |
| 51861CX | 8035 | DIP-40 | MPU 8-bit | 3.95 | 3.59 | 3.25 |
| 51959CX | 8039 | DIP-40 | CPU single chip 8-bit (128 bytes RAM) | 4.49 | 3.99 | 3.59 |
| 51692CX | 80C39 | DIP-40 | CPU sgle chip 8-bit (128 bytes RAM) CMOS | 3.99 | 3.59 | 3.25 |
| 51983CX | 8049* | DIP-40 | CPU sgle chip 8-bit (can be used as 8039*) | 1.95 | 1.75 | 1.59 |
| 51991CX | 8051AP** | DIP-40 | MCU w/128x8 RAM | 5.49 | 4.99 | 4.49 |
| 52003CX | 8052AH** | DIP-40 | CPU 8-bit 256 bytes RAM, tmr/countr & I/O | 7.99 | 7.19 | 6.49 |
| 125647CX | 80C52BASIC | DIP-40 | CPU 8-bit CMOS w/ basic interpreter | 32.09 | 28.89 | 25.99 |
| 52046CX | 8080A | DIP-40 | CPU 8-bit N-channel (1MHz) | 4.49 | 3.95 | 3.59 |
| 52062CX | 8085AH | DIP-40 | CPU 8-bit HMOS (3MHz) | 4.99 | 4.25 | 3.19 |
| 52071CX | 8085AH-2 | DIP-40 | CPU 8-bit HMOS (5MHz) | 5.49 | 4.99 | 4.49 |
| 51705CX | 80C85 | DIP-40 | CPU 8-bit CMOS (3MHz) | 6.95 | 5.95 | 4.45 |
| 52100CX | 8086-2 | DIP-40 | CPU 16-bit (8MHz) | 1.95 | 1.75 | 1.59 |
| 52142CX | 8088 | DIP-40 | CPU 16-bit (8-bit data bus) 5MHz | 2.49 | 2.25 | 1.99 |
| 52169CX | 8088-2 | DIP-40 | CPU 16-bit (8-bit data bus) 8MHz | 5.95 | 5.39 | 4.85 |
| 34358CX | UPD70108-8 | DIP-40 | V20 chip (replaces the 8088-2) 8MHz | 10.99 | 9.99 | 8.99 |
| 52290CX | 8155 | DIP-40 | HMOS RAM I/O port/timer (3MHz) | 4.49 | 3.39 | 2.39 |
| 52302CX | 8155-2 | DIP-40 | HMOS RAM I/O port/timer (5MHz) | 5.95 | 5.39 | 4.85 |
| 52193CX | 81C55 | DIP-40 | 256x8 RAM I/O port/tmr (CMOS) 3MHz | 4.49 | 3.59 | 3.19 |
| 52329CX | 8156 | DIP-40 | RAM with I/O port and timer | 6.99 | 6.29 | 5.69 |
| 52468CX | 8212 | DIP-24 | 8-bit input/output (74S412) | 6.49 | 5.99 | 5.49 |
| 52484CX | 8216 | DIP-16 | Bi-directional bus driver (non-invert.) | 3.95 | 3.39 | 2.55 |
| 52492CX | 8224 | DIP-16 | Clock generator/driver | 2.95 | 2.49 | 2.25 |
| 52513CX | 8228 | DIP-28 | System contr./bus driver (74S428) | 3.69 | 3.19 | 2.36 |
| 52581CX | 8243 | DIP-24 | I/O expander for 48 series | 5.49 | 4.99 | 4.49 |
| 52610CX | 8250A | DIP-40 | Asynchronous comm. element | 4.95 | 4.25 | 3.19 |
| 52644CX | 8251 | DIP-28 | Prog. comm. I/O (USART) | 2.99 | 2.69 | 2.39 |
| 52652CX | 8251A | DIP-28 | Prog. comm. interface (USART) | 3.99 | 3.69 | 3.39 |
| 52370CX | 82C51A | DIP-28 | Prog. comm. interface (USART) CMOS | 4.49 | 3.99 | 3.49 |
| 52679CX | 8253 | DIP-24 | Prog. interval timer | 3.19 | 2.89 | 2.59 |
| 52687CX | 8253-5 | DIP-24 | Prog. interval timer (2MHz) | 4.99 | 4.49 | 3.99 |
| 52388CX | 82C53-5 | DIP-24 | Prog. interval timer (CMOS) 2MHz | 4.95 | 4.25 | 3.19 |
| 52708CX | 8254 | DIP-24 | Prog. interval timer (UPD71054) | 4.49 | 3.99 | 3.59 |
| 52716CX | 8254-2 | DIP-24 | Prog. interval timer (10MHz) | 7.35 | 6.65 | 5.95 |
| 52396CX | 82C54 | DIP-24 | Prog. interval timer (CMOS) | 3.95 | 3.39 | 2.55 |
| 52409CX | 82C54-2 | DIP-24 | Prog. interval timer (CMOS) 10MHz | 4.49 | 3.85 | 2.89 |
| 52724CX | 8255 | DIP-40 | Prog. periph. I/O (PPI) 71055 (2MHz) | 4.49 | 3.99 | 3.49 |
| 52732CX | 8255A-5 | DIP-40 | Prog. peripheral I/O (PPI) 5MHz | 4.89 | 4.39 | 2.89 |
| 52417CX | 82C55A | DIP-40 | Prog. peripheral I/O (PPI) CMOS | 4.99 | 4.49 | 3.99 |
| 52425CX | 82C55A-5 | DIP-40 | Prog. periph. I/O (PPI) CMOS (5MHz) | 4.49 | 3.99 | 3.49 |
| 52759CX | 8256 | DIP-40 | Multif. universal asynch. rec./trans. | 19.99 | 17.99 | 16.19 |
| 52775CX | 8259 | DIP-28 | Prog. interrupt controller (UPD71059) | 1.75 | 1.55 | 1.45 |

* 8049 (ROM not available for use) Tie pin 7 high to bypass the internal ROM to convert 8049 to 8039

** Tie pin 31 low to bypass the internal ROM

8000 Series (Continued)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|---------|--|--------|--------|--------|
| 52783CX | 8259-5 | DIP-28 | Prog. interrupt controller (8259A-2) | \$2.49 | \$2.19 | \$1.99 |
| 52821CX | 8275 | DIP-40 | Prog. CRT controller | 12.95 | 11.05 | 8.29 |
| 52839CX | 8279 | DIP-40 | Prog. keyboard/display interface | 12.99 | 11.99 | 10.99 |
| 52847CX | 8279-5 | DIP-40 | Prog. keybrd/display interface (5MHz) | 12.95 | 11.69 | 10.49 |
| 52855CX | 8282 | DIP-20 | Octal latch (UPD71082) | 6.49 | 5.85 | 5.29 |
| 52871CX | 8284A | DIP-18 | Clock gen. and driver (UPD71084) | 4.49 | 3.99 | 3.59 |
| 52898CX | 8286 | DIP-20 | Octal bus transceiver (UPD71086) | 3.95 | 3.59 | 3.25 |
| 52901CX | 8287 | DIP-20 | Octal bus transceiver (inverted) | 10.99 | 9.99 | 8.99 |
| 52919CX | 8288 | DIP-20 | Bus controller (UPD71088) 82C88-2 | 1.95 | 1.65 | 1.25 |
| 53006CX | 8741 | DIP-40 | 8-bit univ. periph. interface (EPROM) | 7.99 | 7.19 | 6.49 |
| 53014CX | 8742 | DIP-40 | 8-bit univ. peripheral interface | 9.95 | 8.49 | 6.35 |
| 53022CX | 8748 | DIP-40 | CPU 8-bit, EPROM, RAM & I/O (21V) | 13.95 | 11.89 | 8.89 |
| 53031CX | 8748H | DIP-40 | CPU 8-bit, EPROM, RAM & I/O HMOS (21V) | 15.95 | 14.49 | 12.99 |
| 53057CX | 8749H | DIP-40 | MPU 8-bit (EPROM version 8049) | 22.99 | 19.99 | 17.95 |
| 53073CX | 8751 | DIP-40 | CPU w/ 4k EPROM & 128x8 RAM (3.5-8MHz) | 19.99 | 17.99 | 16.19 |
| 53081CX | 8751H | DIP-40 | CPU w/ 4k EPROM & 128x8 RAM (1.2-12MHz) | 28.49 | 24.25 | 18.19 |
| 52978CX | 87C51 | DIP-40 | CPU w/ 4k EPROM & 128x8 RAM (3.5-12MHz) | 21.99 | 18.69 | 13.99 |
| 196120CX | P87C51 | DIP-40 | CPU w/ 4k EPROM & 128x8 RAM (3.5-12MHz)OTP | 8.99 | 8.09 | 7.29 |
| 53090CX | 8755 | DIP-40 | 16k EPROM with I/O | 8.95 | 8.09 | 7.29 |
| 248701CX | T89C51RB2 | PLCC-44 | MCU, flash 16k ROM, 32 I/O | 8.65 | 7.79 | 7.05 |
| 248719CX | T89C51RC2 | PLCC-44 | MCU, flash 32k ROM, 32 I/O | 10.25 | 9.19 | 8.29 |
| 248727CX | T89C51RD2 | PLCC-44 | MCU, flash 64k ROM, 32 I/O | 13.45 | 12.15 | 10.89 |



PIC Microcontrollers

| Part No. | Product No. | Pkg. | Memory | Speed (MHz) | ROM Words | RAM Bytes | I/O Pins | 1 | 25 |
|----------|-------------------|---------|--------|-------------|-----------|-----------|----------|--------|--------|
| 145040CX | PIC12C508A-04/P | DIP-8 | OTP | 4 | 512 | 25 | 5 | \$1.49 | \$9.99 |
| 145058CX | PIC12C509A/JW | DIP-8 | OTP | 4 | 1k | 41 | 5 | 13.95 | 12.59 |
| 144258CX | PIC12C509-04/P | DIP-8 | OTP | 4 | 1k | 41 | 5 | 1.49 | 1.09 |
| 200475CX | PIC12CE518-04/P | DIP-8 | OTP | 4 | 512 | 25 | 6 | 1.89 | 1.49 |
| 200483CX | PIC12CE519-04/P | DIP-8 | OTP | 4 | 1k | 41 | 6 | 1.97 | 1.69 |
| 193455CX | PIC12C671-04/P | DIP-8 | OTP | 4 | 1k | 128 | 6 | 2.79 | 2.29 |
| 193463CX | PIC12C672-04/P | DIP-8 | OTP | 4 | 2k | 128 | 6 | 2.79 | 2.19 |
| 248137CX | PIC12CE673-10/P | DIP-8 | OTP | 10 | 1k | 128 | 5 | 3.41 | 3.19 |
| 248145CX | PIC12CE674-10/P | DIP-8 | OTP | 10 | 2k | 128 | 5 | 3.41 | 2.89 |
| 223790CX | PIC12F629-I/P | DIP-8 | Flash | 20 | 1k | 64 | 6 | 1.59 | 1.39 |
| 247193CX | PIC12F629-I/SN | SOIC-8 | Flash | 20 | 1k | 64 | 6 | 1.59 | 1.29 |
| 223781CX | PIC12F675-I/P | DIP-8 | Flash | 20 | 1k | 64 | 6 | 1.99 | 1.69 |
| 247206CX | PIC12F675-I/SN | SOIC-8 | Flash | 20 | 1k | 64 | 6 | 1.99 | 1.29 |
| 247361CX | PIC14000-4/SP | DIP-28 | OTP | 4 | 4k | 192 | 22 | 9.74 | 9.47 |
| 247370CX | PIC14000-4/SO | SOIC-28 | OTP | 4 | 4k | 192 | 22 | 9.93 | 9.66 |
| 200459CX | PIC16C505-04/P | DIP-14 | OTP | 20 | 1k | 72 | 12 | 1.99 | 1.29 |
| 247329CX | PIC16C505-20/P | DIP-14 | OTP | 20 | 1k | 72 | 11 | 2.00 | 1.69 |
| 247337CX | PIC16C505-20/SL | SOIC-14 | OTP | 20 | 1k | 72 | 11 | 1.99 | 1.69 |
| 128338CX | PIC16C54A-04/P | DIP-18 | OTP | 4 | 512 | 25 | 12 | 3.59 | 2.59 |
| 247214CX | PIC16C54C-20/P | DIP-18 | OTP | 20 | 512 | 25 | 12 | 2.33 | 2.00 |
| 247222CX | PIC16C54C-20/ISO | SOIC-18 | OTP | 20 | 512 | 25 | 12 | 2.33 | 1.91 |
| 247231CX | PIC16C54C-20/SS | SSOP-20 | OTP | 20 | 512 | 25 | 12 | 2.57 | 2.18 |
| 247345CX | PIC16HV540-20/P | DIP-18 | OTP | 20 | 512 | 25 | 12 | 2.30 | 1.95 |
| 247353CX | PIC16HV540-20/ISO | SSOP-20 | OTP | 20 | 512 | 25 | 12 | 2.35 | 2.00 |
| 200416CX | PIC16C55A-04/P | DIP-28 | OTP | 4 | 512 | 24 | 20 | 2.69 | 2.19 |
| 247249CX | PIC16C55A-20/P | DIP-28 | OTP | 20 | 512 | 24 | 20 | 2.96 | 2.61 |
| 247257CX | PIC16C55A-20/ISO | SOIC-28 | OTP | 20 | 512 | 24 | 20 | 3.08 | 2.61 |
| 247388CX | PIC16C554-4/P | DIP-18 | OTP | 4 | 512 | 80 | 13 | 3.51 | 2.96 |

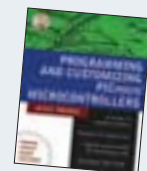
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MICROCHIP PIC Microcontrollers

| Part No. | Product No. | Pkg. | Memory | Speed (MHz) | ROM Words | RAM Bytes | I/O Pins | 1 | 25 |
|----------|-------------------|----------|--------|-------------|-----------|-----------|----------|--------|--------|
| 247396CX | PIC16C554-4/SO | SOIC-18 | OTP | 4 | 512 | 80 | 13 | \$3.57 | \$3.34 |
| 247409CX | PIC16C558-20/P | DIP-18 | OTP | 20 | 2k | 128 | 13 | 4.59 | 3.87 |
| 247417CX | PIC16C558-20/SO | SOIC-18 | OTP | 20 | 2k | 128 | 13 | 4.68 | 4.31 |
| 134172CX | PIC16C56-RC/P | DIP-18 | OTP | 20 | 1k | 25 | 12 | 4.49 | 3.69 |
| 247265CX | PIC16C56A-20/P | DIP-18 | OTP | 20 | 1k | 25 | 12 | 2.87 | 2.44 |
| 247273CX | PIC16C56A-20/SO | SOIC-18 | OTP | 20 | 1k | 25 | 12 | 2.66 | 2.56 |
| 213495CX | PIC16C57C/JW | DIP-28 | OTP | 40 | 2k | 72 | 20 | 13.95 | 12.95 |
| 193341CX | PIC16C57C-04/P | DIP-28 | OTP | 4 | 2k | 72 | 20 | 3.19 | 2.09 |
| 247281CX | PIC16C57C-20/P | DIP-28 | OTP | 20 | 2k | 72 | 20 | 3.46 | 2.75 |
| 247290CX | PIC16C57C-20/SO | SOIC-28 | OTP | 20 | 2k | 72 | 20 | 3.60 | 3.06 |
| 247302CX | PIC16C58B-20/P | DIP-18 | OTP | 20 | 2k | 73 | 12 | 2.77 | 2.22 |
| 247311CX | PIC16C58B-20/SO | SOIC-18 | OTP | 20 | 2k | 73 | 12 | 2.82 | 2.41 |
| 247433CX | PIC16C62B-20/SO | SOIC-28 | OTP | 20 | 2k | 128 | 22 | 4.42 | 3.75 |
| 247425CX | PIC16C62B-20/SP | DIP-28 | OTP | 20 | 2k | 128 | 22 | 4.42 | 3.75 |
| 247505CX | PIC16C620A-20/P | DIP-18 | OTP | 20 | 512 | 96 | 13 | 2.26 | 1.92 |
| 247513CX | PIC16C620A-20/SO | SOIC-18 | OTP | 20 | 512 | 96 | 13 | 2.30 | 1.95 |
| 247521CX | PIC16C621A-20/P | DIP-18 | OTP | 20 | 1k | 96 | 13 | 2.54 | 2.15 |
| 247530CX | PIC16C621A-20/SO | SOIC-18 | OTP | 20 | 1k | 96 | 13 | 2.59 | 2.19 |
| 193383CX | PIC16C622A-04/P | DIP-18 | OTP | 4 | 2k | 128 | 13 | 2.69 | 2.29 |
| 247548CX | PIC16C622A-20/P | DIP-18 | OTP | 20 | 2k | 128 | 13 | 3.15 | 2.69 |
| 247556CX | PIC16C622A-20/SO | SOIC-18 | OTP | 20 | 2k | 128 | 13 | 3.20 | 2.72 |
| 193439CX | PIC16F627-20/P | DIP-18 | Flash | 20 | 1k | 224 | 16 | 3.29 | 2.55 |
| 193447CX | PIC16F628-20/P | DIP-18 | Flash | 20 | 2k | 224 | 16 | 3.69 | 2.69 |
| 246730CX | PIC16F628-20/SO | SOIC-18 | Flash | 20 | 2k | 224 | 16 | 3.71 | 2.73 |
| 246748CX | PIC16F628-20/SS | SSOP-20 | Flash | 20 | 2k | 224 | 16 | 4.02 | 2.97 |
| 246756CX | PIC16F628-20/P | DIP-18 | Flash | 20 | 2k | 224 | 16 | 4.02 | 2.97 |
| 246764CX | PIC16F628-20/SO | SOIC-18 | Flash | 20 | 2k | 224 | 16 | 4.09 | 3.02 |
| 193324CX | PIC16C63A-20/SP | DIP-28 | OTP | 20 | 4k | 192 | 22 | 5.49 | 4.49 |
| 223749CX | PIC16F630-I/P | DIP-14 | Flash | 20 | 1k | 64 | 12 | 1.89 | 1.59 |
| 247126CX | PIC16F630-I/SL | SOIC-14 | Flash | 20 | 1k | 128 | 12 | 1.86 | 1.58 |
| 247134CX | PIC16F630-I/TSSOP | TSSOP-14 | Flash | 20 | 1k | 128 | 12 | 2.07 | 1.77 |
| 247142CX | PIC16F648A-I/P | DIP-18 | Flash | 20 | 4k | 256 | 16 | 3.27 | 1.92 |
| 247151CX | PIC16F648A-I/SO | SOIC-18 | Flash | 20 | 4k | 256 | 16 | 3.34 | 2.46 |
| 247169CX | PIC16F648A-I/SS | SSOP-20 | Flash | 20 | 4k | 256 | 16 | 3.59 | 2.66 |
| 247450CX | PIC16C65B-20/P | PLCC-44 | OTP | 20 | 4k | 192 | 33 | 7.60 | 7.49 |
| 247441CX | PIC16C65B-20/P | DIP-40 | OTP | 20 | 4k | 192 | 33 | 6.79 | 5.69 |
| 200424CX | PIC16C66-04/SP | DIP-18 | OTP | 4 | 8k | 368 | 22 | 5.43 | 4.82 |
| 247476CX | PIC16C66-20/SO | SOIC-28 | OTP | 20 | 8k | 368 | 22 | 8.68 | 7.39 |
| 247468CX | PIC16C66-20/SP | DIP-28 | OTP | 20 | 8k | 368 | 22 | 8.68 | 7.39 |
| 247492CX | PIC16C67-20/L | PLCC-44 | OTP | 20 | 8k | 368 | 33 | 9.10 | 8.55 |
| 247484CX | PIC16C67-20/P | DIP-40 | OTP | 20 | 8k | 368 | 33 | 8.68 | 7.31 |
| 223757CX | PIC16F676-I/P | DIP-14 | Flash | 20 | 1k | 64 | 12 | 2.19 | 1.79 |
| 247177CX | PIC16F676-I/SL | SOIC-14 | Flash | 20 | 1k | 64 | 12 | 2.14 | 1.81 |
| 247185CX | PIC16F676-I/ST | TSSOP-14 | Flash | 20 | 1k | 64 | 12 | 2.35 | 2.00 |
| 247581CX | PIC16C710-20/P | DIP-18 | OTP | 20 | 512 | 36 | 13 | 3.88 | 2.86 |
| 193359CX | PIC16C711-04/P | DIP-18 | OTP | 4 | 1k | 68 | 13 | 3.99 | 2.29 |
| 247599CX | PIC16C711-20/P | DIP-18 | OTP | 20 | 1k | 68 | 13 | 4.65 | 3.42 |
| 247601CX | PIC16C711-20/SO | SOIC-18 | OTP | 20 | 1k | 68 | 13 | 4.75 | 3.49 |
| 247610CX | PIC16C712-20/P | DIP-18 | OTP | 20 | 1k | 128 | 13 | 3.41 | 2.51 |
| 247628CX | PIC16C712-20/SO | SOIC-18 | OTP | 20 | 1k | 128 | 13 | 3.48 | 2.57 |

MICROCHIP PIC Microcontrollers

| Part No. | Product No. | Pkg. | Memory | Speed (MHz) | ROM Words | RAM Bytes | I/O Pins | 1 | 25 |
|----------|-----------------|---------|--------|-------------|-----------|-----------|----------|--------|--------|
| 247636CX | PIC16C715-20/P | DIP-18 | OTP | 20 | 2k | 68 | 13 | \$4.75 | \$3.49 |
| 247644CX | PIC16C715-20/SO | SOIC-18 | OTP | 20 | 2k | 68 | 13 | 4.84 | 4.00 |
| 247652CX | PIC16C716-20/P | DIP-18 | OTP | 20 | 2k | 128 | 13 | 4.18 | 3.09 |
| 247661CX | PIC16C716-20/SO | SOIC-18 | OTP | 20 | 2k | 128 | 13 | 4.62 | 3.14 |
| 247679CX | PIC16C717-I/P | DIP-20 | OTP | 20 | 2k | 256 | 16 | 6.72 | 3.04 |
| 247687CX | PIC16C717-SO | SOIC-20 | OTP | 20 | 2k | 256 | 16 | 3.74 | 2.75 |
| 200432CX | PIC16C72A-04/SP | DIP-28 | OTP | 4 | 2k | 128 | 22 | 4.99 | 4.39 |
| 247695CX | PIC16C72A-20/P | DIP-28 | OTP | 20 | 2k | 128 | 22 | 5.78 | 4.92 |
| 247708CX | PIC16C72A-20/SO | SOIC-28 | OTP | 20 | 2k | 128 | 22 | 5.26 | 4.92 |
| 193391CX | PIC16F73-I/SP | DIP-28 | Flash | 20 | 4k | 192 | 5 | 5.19 | 4.19 |
| 246801CX | PIC16F73-I/SS | SOIC-28 | Flash | 20 | 4k | 192 | 22 | 5.06 | 4.30 |
| 246810CX | PIC16F73-I/SS | SSOP-28 | Flash | 20 | 4k | 192 | 22 | 5.20 | 4.41 |
| 200441CX | PIC16C73A-04/SP | DIP-40 | OTP | 4 | 4k | 192 | 22 | 6.29 | 8.39 |
| 145091CX | PIC16C74A/JW | DIP-40 | OTP | 20 | 14k | 192 | 33 | 19.95 | 17.99 |
| 246772CX | PIC16F74-I/L | PLCC-44 | Flash | 20 | 4k | 192 | 33 | 6.86 | 6.12 |
| 193404CX | PIC16F74-I/P | DIP-40 | Flash | 20 | 4k | 192 | 8 | 6.19 | 5.19 |
| 246781CX | PIC16F74-I/P | TQFP-44 | Flash | 20 | 4k | 192 | 33 | 7.36 | 6.26 |
| 247804CX | PIC16C745-I/SO | SOIC-28 | OTP | 24 | 8k | 256 | 22 | 5.10 | 3.79 |
| 247791CX | PIC16C745-I/SP | DIP-28 | OTP | 24 | 8k | 256 | 22 | 5.10 | 3.79 |
| 246828CX | PIC16F76-I/SO | SOIC-28 | Flash | 20 | 8k | 368 | 22 | 6.34 | 5.39 |
| 193412CX | PIC16F76-I/SP | DIP-28 | Flash | 20 | 8k | 368 | 5 | 6.49 | 5.39 |
| 246836CX | PIC16F76-I/SS | SSOP-28 | Flash | 20 | 8k | 368 | 22 | 6.49 | 5.52 |
| 247821CX | PIC16C765-I/L | PLCC-44 | OTP | 24 | 8k | 256 | 33 | 6.39 | 5.42 |
| 247812CX | PIC16C765-I/P | DIP-40 | OTP | 24 | 8k | 256 | 33 | 6.09 | 4.49 |
| 246799CX | PIC16F77-I/L | PLCC-44 | Flash | 20 | 8k | 368 | 33 | 7.85 | 6.99 |
| 193421CX | PIC16F77-I/P | DIP-40 | Flash | 20 | 8k | 368 | 8 | 7.09 | 5.89 |
| 247716CX | PIC16C770-I/P | DIP-20 | OTP | 20 | 2k | 256 | 16 | 4.07 | 2.99 |
| 247724CX | PIC16C770-SO | SOIC-20 | OTP | 20 | 2k | 256 | 16 | 3.69 | 2.72 |
| 247732CX | PIC16C771-I/P | DIP-20 | OTP | 20 | 2k | 256 | 16 | 4.42 | 3.29 |
| 247741CX | PIC16C771-I/SP | SOIC-20 | OTP | 20 | 2k | 256 | 16 | 4.48 | 3.31 |
| 247759CX | PIC16C773-I/SP | DIP-28 | OTP | 20 | 4k | 256 | 22 | 6.98 | 5.93 |
| 247767CX | PIC16C773-I/SO | SOIC-28 | OTP | 20 | 4k | 256 | 22 | 6.98 | 5.93 |
| 247783CX | PIC16C774-I/L | PLCC-44 | OTP | 20 | 4k | 256 | 33 | 9.05 | 8.52 |
| 247775CX | PIC16C774-I/P | DIP-40 | OTP | 20 | 4k | 256 | 33 | 8.49 | 7.21 |
| 223765CX | PIC16F818-I/P | DIP-18 | Flash | 20 | 1k | 128 | 16 | 3.09 | 2.29 |
| 247054CX | PIC16F818-I/SO | SOIC-18 | Flash | 20 | 1k | 128 | 16 | 3.10 | 2.28 |
| 247062CX | PIC16F818-I/SS | SSOP-20 | Flash | 20 | 1k | 128 | 16 | 3.37 | 2.39 |
| 223773CX | PIC16F819-I/P | DIP-18 | Flash | 20 | 2k | 256 | 16 | 3.59 | 2.59 |
| 247089CX | PIC16F819-I/SO | SOIC-18 | Flash | 20 | 2k | 256 | 16 | 3.53 | 2.60 |
| 247071CX | PIC16F819-I/SS | SSOP-20 | Flash | 20 | 2k | 256 | 16 | 3.81 | 2.81 |
| 145111CX | PIC16F84-04/P | DIP-18 | Flash | 4 | 1k | 68 | 13 | 6.59 | 4.39 |
| 145120CX | PIC16F84-10/P | DIP-18 | Flash | 10 | 1k | 68 | 13 | 7.09 | 5.99 |
| 193332CX | PIC16F84A-20/P | DIP-18 | Flash | 20 | 1k | 68 | 13 | 5.79 | 4.69 |
| 246844CX | PIC16F84A-20/SO | SOIC-18 | Flash | 20 | 1k | 68 | 13 | 5.73 | 4.87 |
| 246852CX | PIC16F84A-20/SS | SSOP-20 | Flash | 20 | 1k | 68 | 13 | 6.11 | 5.19 |
| 246861CX | PIC16F84A-20/P | DIP-18 | Flash | 20 | 1k | 68 | 13 | 6.20 | 5.24 |
| 246879CX | PIC16F84A-20/SO | SOIC-18 | Flash | 20 | 1k | 68 | 13 | 6.30 | 5.35 |
| 246887CX | PIC16F84A-20/SS | SSOP-20 | Flash | 20 | 1k | 68 | 13 | 6.66 | 5.65 |
| 247097CX | PIC16F87-I/P | DIP-18 | Flash | 20 | 4k | 368 | 16 | 4.02 | 2.97 |
| 247100CX | PIC16F87-I/SO | SOIC-18 | Flash | 20 | 4k | 368 | 16 | 4.12 | 3.04 |

Time'n and Count'n Intermediate Level PIC Applications

Square 1 Publishing The material and information presented in this book previously appeared in PIC'n Techniques book. The more current PIC16F870 is substituted for the PIC 16C63. Topics such as test equipment for timing and counting experiments to using timer 1 / timer 2, and capture/compare/PWM as well as programs are included in this book. (218 pages, 2002)

• Size: 8.5" x 11.0" • Weight: 1.4 lbs.

| Part No. | Description | Price |
|----------|--------------------------|---------|
| 210489CX | Time'n and Count'n | \$34.95 |

PIC BASIC Programming and Projects

Newnes Publications The BASIC language, as used by the most popular PIC compilers, is introduced from square one, with simple code used to illustrate each of the most commonly used instructions. PIC BASIC is the simplest and quickest way to get up and running – designing and building circuits using a microcontroller. (210 pages, 2001)

• Size: 6.1" x 9.2" • Weight: 0.8 lbs.

| Part No. | Description | 1 | 10 |
|----------|-----------------------------|---------|---------|
| 200168CX | PIC BASIC Programming | \$34.95 | \$32.95 |

PIC Microcontroller Project Book Comprehensive Beginner's Guide

McGraw-Hill Provides you with hands-on directions for putting Microchip's RISC-based chips with up to 8k of memory to work. Starting with simple projects and experiments, this book leads you gradually into sophisticated programming techniques. Provides you guidance on getting the equipment you need and programming your chip. (203 pages, 2000)

• Size: 7.3" x 9.2" • Weight: 1.0 lb.

| Part No. | Description | Price |
|----------|----------------------------|---------|
| 174650CX | PIC Beginner's Guide | \$29.95 |

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We will special order any IC – \$100 minimum.

MICROCHIP PIC Microcontrollers

SSOP

PLCC

| Part No. | Product No. | Pkg. | Memory | Speed (MHz) | ROM Words | RAM Bytes | I/O Pins | 1 | 25 |
|----------|------------------|---------|--------|-------------|-----------|-----------|----------|--------|--------|
| 247118CX | PIC16F87-I/SS | SSOP-20 | Flash | 20 | 4k | 368 | 16 | \$4.42 | \$3.26 |
| 246908CX | PIC16F870-I/SO | SOIC-28 | Flash | 20 | 2k | 128 | 22 | 4.35 | 3.69 |
| 246895CX | PIC16F870-I/SP | DIP-28 | Flash | 20 | 2k | 128 | 22 | 4.35 | 3.69 |
| 246916CX | PIC16F870-I/SS | SSOP-28 | Flash | 20 | 2k | 128 | 22 | 4.49 | 3.81 |
| 246932CX | PIC16F871-I/L | PLCC-44 | Flash | 20 | 2k | 128 | 33 | 5.76 | 5.40 |
| 246924CX | PIC16F871-I/P | DIP-40 | Flash | 20 | 2k | 128 | 33 | 5.15 | 4.65 |
| 246959CX | PIC16F872-I/SO | SOIC-28 | Flash | 20 | 2k | 128 | 22 | 4.35 | 3.69 |
| 246941CX | PIC16F872-I/SP | DIP-28 | Flash | 20 | 2k | 128 | 22 | 4.35 | 3.69 |
| 246967CX | PIC16F872-I/SS | SSOP-28 | Flash | 20 | 2k | 128 | 22 | 4.49 | 3.81 |
| 246983CX | PIC16F873A-I/SO | SOIC-28 | Flash | 20 | 4k | 192 | 22 | 6.16 | 5.22 |
| 246975CX | PIC16F873A-I/SP | DIP-28 | Flash | 20 | 4k | 192 | 22 | 6.29 | 5.19 |
| 247003CX | PIC16F874A-I/L | PLCC-44 | Flash | 20 | 4k | 192 | 33 | 7.55 | 6.73 |
| 246991CX | PIC16F874A-I/P | DIP-40 | Flash | 20 | 4k | 192 | 33 | 6.72 | 5.72 |
| 247020CX | PIC16F876A-I/SO | SOIC-28 | Flash | 20 | 8k | 368 | 22 | 6.63 | 5.64 |
| 247011CX | PIC16F876A-I/SP | DIP-28 | Flash | 20 | 8k | 368 | 22 | 6.63 | 5.64 |
| 193367CX | PIC16F876-20/SP | DIP-28 | Flash | 20 | 256 | 368 | 22 | 7.89 | 6.69 |
| 247046CX | PIC16F877A-I/L | PLCC-44 | Flash | 20 | 8k | 368 | 33 | 8.11 | 7.24 |
| 247038CX | PIC16F877A-I/P | DIP-40 | Flash | 20 | 8k | 368 | 33 | 7.24 | 6.15 |
| 176882CX | PIC16F877-20/P | DIP-40 | Flash | 20 | 256 | 368 | 33 | 9.49 | 8.49 |
| 247847CX | PIC16C923-04I/L | PLCC-68 | OTP | 4 | 4k | 176 | 52 | 6.29 | 6.11 |
| 247880CX | PIC17C42A-16/L | PLCC-44 | OTP | 16 | 2k | 232 | 33 | 10.39 | 9.64 |
| 247871CX | PIC17C42A-16/P | DIP-40 | OTP | 16 | 2k | 232 | 33 | 9.39 | 8.29 |
| 247901CX | PIC17C43-25/L | PLCC-44 | OTP | 25 | 4k | 454 | 33 | 12.31 | 11.55 |
| 247898CX | PIC17C43-25/P | DIP-40 | OTP | 25 | 4k | 454 | 33 | 11.90 | 10.00 |
| 247927CX | PIC17C44-33/L | PLCC-44 | OTP | 33 | 8k | 454 | 33 | 15.39 | 13.59 |
| 247919CX | PIC17C44-33/P | DIP-40 | OTP | 33 | 8k | 454 | 33 | 14.75 | 12.40 |
| 247935CX | PIC17C752-33/L | PLCC-68 | OTP | 33 | 8k | 678 | 50 | 13.95 | 12.95 |
| 247943CX | PIC17C756A-33I/L | PLCC-68 | OTP | 33 | 16k | 902 | 50 | 16.05 | 14.89 |
| 247951CX | PIC17C762-16/L | PLCC-84 | OTP | 33 | 8k | 678 | 66 | 15.94 | 14.80 |
| 247960CX | PIC17C766-33I/L | PLCC-84 | OTP | 33 | 16k | 902 | 66 | 19.25 | 17.89 |
| 248090CX | PIC18F1220-I/P | DIP-18 | Flash | 40 | 2k | 256 | 16 | 4.35 | 3.89 |
| 248102CX | PIC18F1220-I/SO | SOIC-18 | Flash | 40 | 2k | 256 | 16 | 4.35 | 3.89 |
| 248111CX | PIC18F1320-I/P | DIP-18 | Flash | 40 | 4k | 256 | 16 | 4.89 | 4.40 |
| 248129CX | PIC18F1320-I/SO | SOIC-18 | Flash | 40 | 4k | 256 | 16 | 4.89 | 4.40 |
| 247986CX | PIC18F242-I/SO | SOIC-28 | Flash | 40 | 8k | 768 | 23 | 7.39 | 6.61 |
| 247978CX | PIC18F242-I/SP | DIP-28 | Flash | 40 | 8k | 768 | 23 | 7.39 | 6.61 |
| 248006CX | PIC18F252-I/SO | SOIC-28 | Flash | 40 | 16k | 1536 | 23 | 8.05 | 7.20 |
| 247994CX | PIC18F252-I/SP | DIP-28 | Flash | 40 | 16k | 1536 | 23 | 8.05 | 7.20 |
| 200504CX | PIC18C252-I/SP | DIP-28 | OTP | 40 | 32k | 1536 | 23 | 7.75 | 6.95 |
| 248022CX | PIC18F258-I/SO | SOIC-28 | Flash | 40 | 16k | 1536 | 23 | 9.65 | 8.62 |
| 248014CX | PIC18F258-I/SP | DIP-28 | Flash | 40 | 16k | 1536 | 23 | 9.65 | 8.62 |
| 248081CX | PIC18F442-I/L | PLCC-44 | Flash | 40 | 8k | 768 | 34 | 9.59 | 8.63 |
| 248073CX | PIC18F442-I/P | DIP-40 | Flash | 40 | 8k | 768 | 34 | 8.15 | 7.35 |
| 200512CX | PIC18C452-I/P | DIP-40 | OTP | 40 | 32k | 1536 | 23 | 9.19 | 7.49 |
| 200521CX | PIC18C452/JW | DIP-40 | EPROM | 40 | 32k | 1536 | 23 | 22.85 | 20.55 |
| 248049CX | PIC18F452-I/L | PLCC-44 | Flash | 40 | 16k | 1536 | 34 | 10.29 | 9.26 |
| 248031CX | PIC18F452-I/P | DIP-40 | Flash | 40 | 16k | 1536 | 34 | 8.85 | 7.99 |
| 248065CX | PIC18F458-I/L | PLCC-44 | Flash | 40 | 16k | 1536 | 34 | 11.15 | 10.05 |
| 248057CX | PIC18F458-I/P | DIP-40 | Flash | 40 | 16k | 1536 | 34 | 9.79 | 8.75 |

See page 223 for *microEngineering Labs* PIC Products.

ATMEL AT89C Series

NEW

DIP

SOIC

| Part No. | Product No. | Pkg. | Description | 1 | 25 |
|----------|-----------------|---------|---|--------|--------|
| 248330CX | ATMEGA8-16PI | DIP-28 | 8-bit MCU, 16MHz 8k flash | \$5.25 | \$4.41 |
| 248153CX | ATTINY11-6PC | DIP-8 | 8-bit MCU, 6MHz 1k flash | 1.66 | 1.41 |
| 248161CX | ATTINY11-6SI | SOIC-8 | 8-bit MCU, 6MHz 1k flash | 1.79 | 1.51 |
| 248170CX | ATTINY12-8PC | DIP-8 | 8-bit MCU, 8MHz 1k flash | 1.85 | 1.59 |
| 248188CX | ATTINY12-8SI | SOIC-8 | 8-bit MCU, 8MHz 1k flash | 1.99 | 1.69 |
| 248196CX | ATTINY15L-1PC | DIP-8 | 8-bit MCU, 1.6MHz 1k flash | 2.99 | 2.53 |
| 248209CX | ATTINY15L-1SI | SOIC-8 | 8-bit MCU, 1.6MHz 1k flash | 2.99 | 2.53 |
| 248217CX | ATTINY26-16PC | DIP-20 | 8-bit MCU, 16MHz 2k flash | 2.49 | 2.11 |
| 248225CX | ATTINY26-16SI | SOIC-20 | 8-bit MCU, 16MHz 2k flash | 2.58 | 2.25 |
| 248233CX | ATTINY28L-4PC | DIP-28 | 8-bit MCU, 4MHz 2k flash | 2.25 | 1.88 |
| 248348CX | ATMEGA8515-16JI | PLCC-44 | 8-bit MCU, 16MHz 8k flash | 5.19 | 4.52 |
| 168866CX | AT89C1051-24PC | DIP-20 | 8-bit MCU, 24MHz 1k flash mem. | 2.65 | 2.15 |
| 168874CX | AT89C2051-24PC | DIP-20 | 8-bit MCU, 24MHz 2k flash mem. | 3.59 | 2.39 |
| 204089CX | AT89C4051-24PC | DIP-20 | 8-bit MCU, 24MHz 4k flash mem. 8-bit .. | 4.49 | 2.95 |
| 168911CX | AT89C51-24JC | PLCC-44 | 8-bit MCU w/ 4k flash | 1.89 | 1.79 |
| 168903CX | AT89C51-24PC | DIP-40 | 8-bit MCU, 24MHz 4k flash memory | 4.49 | 3.99 |
| 168920CX | AT89C52-24PC | DIP-40 | 8-bit MCU, 24MHz 8k flash memory | 4.39 | 2.85 |
| 168938CX | AT89C52-24JC | PLCC-44 | 8-bit MCU, 24MHz 8k flash | 4.35 | 2.83 |
| 220871CX | AT89S52-24JI | PLCC-44 | 8-bit MCU, 8k programmable flash | 3.05 | 1.98 |
| 168946CX | AT89C55WD-24PC | DIP-40 | 8-bit MCU, 24MHz 20k flash memory ... | 7.99 | 7.19 |
| 204097CX | AT89S8252-24PC | DIP-40 | 8-bit MCU, 24MHz 8k flash mem. 2k EEPROM ... | 6.75 | 4.49 |
| 204100CX | AT90S1200-12PC | DIP-20 | 20 AVR 8-bit RISC MCU, 12MHz 1k prog. flash | 2.95 | 1.95 |
| 248241CX | AT90S1200A-12SC | SOIC-20 | 8-bit AVR MCU, 12MHz 1k prog. flash | 2.89 | 2.45 |
| 248250CX | AT90S2313-10PC | DIP-20 | 8-bit AVR MCU, 10MHz 2k prog. flash | 3.25 | 2.69 |
| 248268CX | AT90S2313-10SI | SOIC-20 | 8-bit AVR MCU, 10MHz 2k prog. flash | 2.65 | 2.39 |
| 248276CX | AT90S2323-10SI | SOIC-8 | 8-bit AVR MCU, 10MHz 2k prog. flash ... | 3.25 | 2.79 |
| 248284CX | AT90S2343-10PC | DIP-8 | 8-bit AVR MCU, 10MHz 2k prog. flash ... | 2.99 | 2.63 |
| 248292CX | AT90S2343-10SI | SOIC-8 | 8-bit AVR MCU, 10MHz 2k prog. flash ... | 3.49 | 2.74 |
| 204126CX | AT90S8515-8PC | DIP-40 | 8-bit AVR MCU, 8MHz 8k prog. flash | 7.95 | 5.49 |

TEXAS INSTRUMENTS

Microcontrollers

SSOP

| Part No. | Product No. | Pkg. | Description | 1 | 10 | 100 |
|----------|-----------------|---------|--------------------------------------|--------|--------|--------|
| 248663CX | MSP430F1121AIPW | SSOP-20 | MCU, flash 8MHz 4k ROM, 15 I/O | \$3.55 | \$3.45 | \$3.09 |
| 248680CX | MSP430F1231PW | SSOP-28 | MCU, flash 8MHz 4k ROM, 15 I/O | 4.79 | 4.69 | 4.25 |

Stamp Microcontrollers

DIP



80C52-BASIC Microcontroller

The 80C52-BASIC chip is a custom-masked 80C52 microcontroller with a full-featured 8k-byte ROM-resident BASIC-52 interpreter.

Hardware: • On-chip oscillator and clock circuit
• Operates DC to 12MHz • 256 x 8-bit RAM

Software: • Full BASIC interpreter in ROM on a single chip
• "Stand-alone" software development
• Interrupts can be handled by BASIC or Assembly Language

| Part No. | Product No. | Description | 1 | 10 | 100 |
|----------|-------------|--|---------|---------|---------|
| 125647CX | 80C52BASIC | 40-pin CPU 8-bit CMOS w/ BASIC interpreter | \$32.09 | \$28.89 | \$25.99 |

PARALLAX

50MIPS SX Microcontroller

| Part No. | Parallax No. | Description | 1 | 10 | 100 |
|----------|--------------|--|--------|--------|--------|
| 162931CX | SX28AC/DP | 28-pin 50MIPS SX microcontroller | \$4.99 | \$4.89 | \$4.79 |

Microcontrol'n Apps

PIC Microcontroller Applications (Version 2)

Square 1 Publishing This book is a revision and/or the successor to PIC'n Up The Pace. Materials covered in the book include talking to a PIC microcontroller with a PC running a terminal, simple data logger and digital voltmeter experiment, PIC16F87x and 10-bit A/D conversion. (437 pgs, 2002)

• Size: 8.5" x 11.0" • Weight: 1.7 lbs.



| Part No. | Description | Price |
|----------|---------------------------|---------|
| 215052CX | Microcontrol'n Apps | \$44.95 |

Serial Communications

Serial Communications PIC Applications

Square 1 Publishing Topics such as asynchronous serial communications, RS242 standard, ASCII character code, bit-bang asynchronous communications, synchronous serial communications to name a few are covered in this book as well as tool box modules and applications. (566 pages, 2002)

• Size: 8.6" x 11.0" • Weight: 3.5 lbs.



| Part No. | Description | Price |
|----------|-----------------------------|---------|
| 210497CX | Serial Communications | \$49.95 |

Easy Microcontrol'n

Beginners Guide (Version 4)

Square 1 Publishing A revision of and the successor to Easy PIC'n that covers Peripheral Interface Controller (PIC) PIC16F84, writing programs, interrupts, timing and counting, and much more. (178 pages, 2002)

• Size: 8.5" x 11.0"
• Weight: 1.2 lbs.



| Part No. | Description | Price |
|----------|---------------------------|---------|
| 215061CX | Easy Microcontrol'n | \$29.95 |

Programmable Logic – Standard Logic

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Voice Chips

DIP 

Single-Chip Voice Record/Playback Devices

10 to 240 Second Durations (28-pin DIP)

- Easy-to-use single-chip voice recording and playback
- Manual switch or microprocessor controllable
- Directly cascadable for longer durations
- Fully addressable to handle multiple messages
- Zero-power message storage – eliminates battery backup circuits
- Single voltage operation: +5V (4.5V to 5.5V operating range)
- Automatic power-down (push-button mode)
- Playback can be edge or level-activated
 - On-chip clock source
 - 100k record cycles (typical)
 - On-chip automatic gain control (AGC)
- 1 µA standby current (typical)
- 100-year message retention (typical)

107334CX

| Part No. | Product No. | Description | 1 | 10 | 50 |
|----------|-------------|----------------------------------|--------|--------|--------|
| 141671CX | ISD1110P | Voice record/playback (10 sec.) | \$4.29 | \$3.99 | \$3.79 |
| 107334CX | ISD1420P | Voice record/playback (20 sec.) | 5.39 | 5.09 | 4.89 |
| 120643CX | ISD2560P | Voice record/playback (60 sec.) | 9.19 | 8.59 | 7.79 |
| 120660CX | ISD2590P | Voice record/playback (90 sec.) | 9.29 | 8.69 | 7.89 |
| 141655CX | ISD25120P | Voice record/playback (120 sec.) | 9.95 | 9.45 | 8.79 |

FPLA, PALs and GALs

DIP  PLCC 

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|---------|--|---------|---------|---------|
| 27748CX | N825100 | DIP-28 | 16 x 48 x 8 field-prog. logic array, tri-state | \$14.95 | \$13.49 | \$12.15 |
| 28020CX | PAL16L8 | DIP-20 | Octal 16-input AND-OR-INVERT gate array | 2.25 | 1.75 | 1.66 |
| 88399CX | 16V8-10* | DIP-20 | 10ns 64 x 32 AND array | 2.59 | 2.35 | 2.10 |
| 37452CX | 16V8-15* | DIP-20 | 15ns 64 x 32 AND array | 1.39 | 1.25 | 1.12 |
| 37461CX | 16V8-25* | DIP-20 | 25ns 64 x 32 AND array | 1.25 | 1.09 | .99 |
| 88292CX | 20V8-10** | DIP-24 | 10ns 64 x 40 AND array | 1.85 | 1.60 | 1.43 |
| 38658CX | 20V8-15** | DIP-24 | 15ns 64 x 40 AND array | 1.74 | 1.41 | 1.19 |
| 38666CX | 20V8-25** | DIP-24 | 15ns 64 x 40 AND array | 1.63 | 1.46 | 1.23 |
| 235352CX | 20VP8-25LJ | PLCC-28 | 15ns 64 x 40 AND array | 1.63 | 1.46 | 1.23 |
| 123801CX | 22V10-10 | DIP-24 | 10ns 132 x 44 AND array | 5.49 | 4.99 | 4.49 |
| 39159CX | 22V10-15 | DIP-24 | 15ns 132 x 44 AND array | 4.49 | 3.95 | 3.55 |
| 39167CX | 22V10-25 | DIP-24 | 25ns 132 x 44 AND array | 3.99 | 3.49 | 3.09 |

GALs are electrically erasable PLDs that can be used in place of numerous PALs

* Replaces PALs: 10H8, 10L8, 10P8, 12H6, 12L6, 12P6, 14H4, 14L4, 14P4, 16H2, 16H8, 16L2, 16L8, 16P2, 16P8, 16R4, 16R6, 16R8, 16RP4, 16RP6, 16RP8

** Replaces PALs: 14H8, 14L8, 14P8, 16H6, 16L6, 16P6, 18H4, 18L4, 18P4, 20H2, 20H8, 20L2, 20L8, 20P2, 20P8, 20R4, 20R6, 20R8, 20RP4, 20RP6, 20RP8

PEEL™ Devices (CMOS)

DIP 

Programmable Electrically Erasable Logic (PEEL) devices allow for superset replacement of over 40 standard 20-pin and 24-pin PLDs (PAL, GAL, EPLD, etc.). They also offer additional architectural features so more logic can be put into every design.

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|-------------|--------|--|--------|--------|--------|
| 105953CX | 18CV8P-25 | DIP-20 | PLD superset 12 config. I/O pins (8) 25ns | \$2.25 | \$1.99 | \$1.79 |
| 105996CX | 22CV10AP-25 | DIP-24 | PLD superset 4/12 config. I/O pins (10) 25ns | 2.59 | 2.35 | 2.05 |

7400 Series

DIP 

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|--|--------|--------|--------|
| 48979CX | 7400N** | DIP-14 | Quad 2-input NAND gate | \$6.65 | \$5.55 | \$4.45 |
| 49007CX | 7401N | DIP-14 | Quad 2-input NAND gate (O.C.) | .59 | .55 | .49 |
| 49015CX | 7402N* | DIP-14 | Quad 2-input NOR gate | .59 | .49 | .45 |
| 49040CX | 7404N** | DIP-14 | Hex inverter | .59 | .49 | .45 |
| 49074CX | 7405N* | DIP-14 | Hex inverter (O.C.) | .56 | .43 | .30 |
| 49091CX | 7406N** | DIP-14 | Hex inverter buffer/driver (O.C.) | .45 | .39 | .35 |
| 49120CX | 7407N** | DIP-14 | Hex buffer/driver (O.C.) | .35 | .32 | .28 |
| 49146CX | 7408N* | DIP-14 | Quad 2-input AND gate | .82 | .63 | .48 |
| 49189CX | 7410N* | DIP-14 | Triple 3-input NAND gate | .33 | .30 | .21 |
| 49402CX | 7413N | DIP-14 | Dual 4-input NAND gate Schmitt trigger | .89 | .76 | .57 |
| 49437CX | 7414N* | DIP-14 | Hex inverter Schmitt trigger | .59 | .54 | .50 |
| 49630CX | 7416N* | DIP-14 | Hex inverter buffer/driver (O.C.) | .52 | .44 | .33 |
| 49728CX | 7417N* | DIP-14 | Hex buffer/driver (O.C. hi-voltage) | .91 | .77 | .58 |
| 50008CX | 7420N* | DIP-14 | Dual 4-input NAND gate | .49 | .45 | .39 |
| 50083CX | 7425N | DIP-14 | Dual 4-input NOR gate with strobe | .78 | .75 | .72 |
| 50139CX | 7427N | DIP-14 | Triple 3-input NOR gate | .59 | .50 | .38 |
| 50198CX | 7428N | DIP-14 | Quad 2-input NOR buffer | .79 | .69 | .59 |

* 10 pcs. in 7400 series IC cabinet kit, pg 227

** 20 pcs. in 7400 series IC cabinet kit, pg 227

7400 Series (Continued)

DIP 

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|--|--------|--------|--------|
| 50235CX | 7432N* | DIP-14 | Quad 2-input OR gate | \$5.59 | \$4.49 | \$4.45 |
| 50315CX | 7438N* | DIP-14 | Quad 2-input NAND buffer (O.C.) | .56 | .48 | .37 |
| 50358CX | 7440N | DIP-14 | Dual 4-input NAND buffer | .55 | .47 | .35 |
| 50374CX | 7442N | DIP-16 | BCD-to-decimal decoder | 1.14 | .97 | .73 |
| 50403CX | 7445N | DIP-16 | BCD-to-decimal decoder/driver | 1.02 | .91 | .79 |
| 50411CX | 7446N | DIP-16 | BCD-to-7 segment decoder/driver | 2.09 | 1.95 | 1.89 |
| 50420CX | 7447N* | DIP-16 | BCD-to-7 segment decoder/driver | 1.49 | 1.29 | .99 |
| 50518CX | 7470N* | DIP-14 | Edge-triggered JK flip-flop | .81 | .77 | .73 |
| 50526CX | 7472N | DIP-14 | AND gated JK master/slave flip-flop | 2.25 | 1.19 | .95 |
| 50534CX | 7473N | DIP-14 | Dual JK flip-flop with clear | .85 | .75 | .59 |
| 50551CX | 7474N** | DIP-14 | Dual D flip-flop | .59 | .49 | .39 |
| 50577CX | 7475N | DIP-16 | 4-bit bi-stable latch | 2.95 | 2.75 | 2.49 |
| 50593CX | 7476N | DIP-16 | Dual JK flip-flop with preset and clear | 1.79 | 1.51 | 1.08 |
| 50631CX | 7483N | DIP-16 | 4-bit binary full adder | .89 | .79 | .69 |
| 50657CX | 7485N* | DIP-16 | 4-bit magnitude comparator | .74 | .61 | .45 |
| 50227CX | 7430N* | DIP-14 | 8-input NAND gate | .56 | .48 | .37 |
| 50665CX | 7486N | DIP-14 | Quad EXCLUSIVE-OR gate | .89 | .75 | .56 |
| 50681CX | 7489N | DIP-16 | 64-bit RAM P 50ns | 3.49 | 3.19 | 2.99 |
| 50690CX | 7490N | DIP-14 | Decade counter | 1.49 | 1.15 | .78 |
| 50737CX | 7492N | DIP-14 | Divide-by-12 counter | 1.49 | 1.29 | .95 |
| 50745CX | 7493N | DIP-14 | 4-bit binary counter | 1.49 | 1.34 | 1.19 |
| 50770CX | 7495N* | DIP-14 | 4-bit parallel-access shift reg. (K155N) | .79 | .68 | .45 |
| 50796CX | 7497N | DIP-16 | Synch. 6-bit binary rate multipliers | 1.99 | 1.69 | 1.24 |
| 49234CX | 74107N* | DIP-14 | Dual JK flip-flop with clear | .45 | .38 | .28 |
| 49293CX | 74116N | DIP-24 | Dual 4-bit latches with clear | 1.24 | 1.11 | .99 |
| 49322CX | 74121N | DIP-14 | Monostable multivibrator | .99 | .89 | .79 |
| 49349CX | 74122N | DIP-14 | Retriggerable mono. multivibrator w/ clear | 1.02 | 1.00 | .98 |
| 49357CX | 74123N* | DIP-16 | Dual retriggerable mono. multivibrator | 1.15 | 1.09 | .90 |
| 49373CX | 74125N | DIP-14 | Quad bus buffer tri-state (DM8093N) | 1.11 | .99 | .86 |
| 49411CX | 74132N* | DIP-14 | Quad 2-input NAND Schmitt trigger | 1.02 | .79 | .56 |
| 49496CX | 74148N | DIP-16 | 8 to 3 line octal priority encoder | 1.24 | 1.11 | .99 |
| 49509CX | 74150N | DIP-24 | 16 to 1 line multiplexer | 1.95 | 1.75 | 1.55 |
| 49525CX | 74151N* | DIP-16 | 8-input multiplexer | .49 | .42 | .31 |
| 49550CX | 74153N* | DIP-16 | Dual 4/1 data selector/multiplexer | .49 | .36 | .25 |
| 49568CX | 74154N | DIP-24 | 4 to 16 line decoder/demultiplexer | 2.25 | 1.95 | 1.75 |
| 49605CX | 74157N* | DIP-16 | Quad 2/1 data selector | .61 | .46 | .33 |
| 49648CX | 74160N* | DIP-16 | Decade counter with asynch. clear | .45 | .38 | .29 |
| 49664CX | 74161N | DIP-16 | Synchronous 4-bit counter | .61 | .53 | .40 |
| 49672CX | 74163N | DIP-16 | Synchronous 4-bit counter | .61 | .53 | .39 |
| 49681CX | 74164N | DIP-14 | 8-bit serial shift register | .74 | .63 | .48 |
| 49699CX | 74165N | DIP-16 | 8-bit serial shift register, parallel load | .86 | .74 | .56 |
| 49779CX | 74174N* | DIP-16 | Hex D-type flip-flop with clear | .86 | .74 | .56 |
| 49795CX | 74175N* | DIP-16 | Quad D-type flip-flop with clear | .74 | .63 | .48 |
| 49832CX | 74180N | DIP-14 | 9-bit odd/even parity generator/checker | 2.49 | 2.34 | 1.99 |
| 49841CX | 74181N | DIP-24 | Arithmetic logic unit/function generator | 2.86 | 2.49 | 2.24 |
| 49883CX | 74189N | DIP-16 | 64-bit RAM tri-state (DM8599N) | 3.40 | 3.31 | 2.55 |
| 49904CX | 74191N | DIP-16 | Binary up/down counter | 1.61 | 1.44 | 1.09 |
| 49912CX | 74192N | DIP-16 | Decade up/down counter with clear | 3.69 | 3.39 | 3.19 |
| 49939CX | 74193N | DIP-16 | Binary up/down counter with clear | 1.60 | 1.37 | 1.25 |
| 49955CX | 74194N | DIP-16 | 4-bit bi-directional shift register | 1.39 | 1.25 | 1.15 |
| 49963CX | 74195N | DIP-16 | 4-bit parallel-access shift register | 1.63 | 1.58 | 1.50 |
| 50171CX | 74279N* | DIP-16 | Quad set-reset latch | 1.74 | 1.56 | 1.44 |
| 88225CX | SDLD001A | — | Texas Instruments TTL Data Book | 34.95 | 31.49 | 29.95 |

* 10 pcs. in 7400 series IC cabinet kit, pg 227 ** 20 pcs. in 7400 series IC cabinet kit, pg 227

IC Test Clip Series

- For temporary connections to DIP package components
- Heavy-duty spring loaded hinge provides positive contact
- 20 AWG insulated gold contacts
- Color: white

22103CX



| Part No. | Cross Ref. | Description | 1 | 10 | 25 |
|----------|------------|-----------------------------------|--------|--------|--------|
| 22103CX | JTC16 | 16-pin (for 8, 14 and 16-pin ICs) | \$6.95 | \$6.25 | \$5.59 |
| 22120CX | JTC20 | 20-pin (for 18 and 20-pin ICs) | 8.95 | 6.50 | 5.35 |
| 22162CX | JTC28 | 28-pin | 10.95 | 9.95 | 8.95 |
| 22189CX | JTC40 | 40-pin | 11.95 | 11.35 | 10.75 |

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74AC(T)XXX Advanced CMOS Logic Competitive Cross Reference Guide

| Family | Package | TI | Jameco | Fairchild | On Semi | ST Micro | Philips | Toshiba |
|--------|---------|-----------------|-------------|--------------|-----------------|---------------|-------------|------------------|
| AC(T) | DIP | SN74AC(T)XXXN | 74AC(T)XXXN | 74AC(T)XXXPC | MC74AC(T)XXXN | MC74AC(T)XXXB | 74AC(T)XXXN | TC74AC(T)XXXP |
| | DIP | CD74AC(T)XXE | 74AC(T)XXXN | 74AC(T)XXXPC | MC74AC(T)XXXN | MC74AC(T)XXXB | 74AC(T)XXXN | TC74AC(T)XXXP |
| | SOIC | SN74AC(T)XXD/DW | 74AC(T)XXXM | 74AC(T)XXSC | MC74AC(T)XXD/DW | MC74AC(T)XXXM | 74AC(T)XXD | TC74AC(T)XXFN/FW |
| | SOIC | CD74AC(T)XXM | 74AC(T)XXXM | 74AC(T)XXSC | MC74AC(T)XXD/DW | MC74AC(T)XXXM | 74AC(T)XXD | TC74AC(T)XXFN/FW |

74AC Series – AC family offers CMOS inputs with CMOS outputs

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| Texas Instruments – Save 6-10% | | | | Mixed Major Brands – Save up to 20% | | | |
|--------------------------------|---------|---|----------|-------------------------------------|-----------|--------|--------|
| Base No. | Package | Description | Part No. | T.I. Product No. | 1 | 10 | 100 |
| 74AC00 | SOIC-14 | Quad 2-input NAND gate | 263880CX | SN74AC00D | * | \$.16 | \$.14 |
| 74AC00 | DIP-14 | Quad 2-input NAND gate | 256858CX | SN74AC00N |28 | .26 | .18 |
| 74AC02 | SOIC-14 | Quad 2-input NOR gate | 264090CX | SN74AC02M |26 | .23 | .17 |
| 74AC02 | DIP-14 | Quad 2-input NOR gate | 256891CX | CD74AC02E |29 | .26 | .24 |
| 74AC04 | SOIC-14 | Hex inverter | 264111CX | SN74AC04D | * | .17 | .15 |
| 74AC04 | DIP-14 | Hex inverter | 256903CX | SN74AC04N |26 | .25 | .18 |
| 74AC08 | SOIC-14 | Quad 2-input AND gate | 264137CX | SN74AC08D |26 | .23 | .18 |
| 74AC08 | DIP-14 | Quad 2-input AND gate | 256911CX | SN74AC08N |41 | .35 | .26 |
| 74AC10 | SOIC-14 | Triple 3-input NAND gate | 264153CX | SN74AC10D |26 | .23 | .15 |
| 74AC10 | DIP-14 | Triple 3-input NAND gate | 256920CX | SN74AC10N |41 | .35 | .25 |
| 74AC11 | SOIC-14 | Triple 3-input AND gate | 264170CX | SN74AC11D |32 | .26 | .18 |
| 74AC11 | DIP-14 | Triple 3-input AND gate | 256938CX | SN74AC11N |32 | .26 | .18 |
| 74AC14 | SOIC-14 | Hex inverter with Schmitt trigger input | 264209CX | SN74AC14D |20 | .17 | .15 |
| 74AC14 | DIP-14 | Hex inverter with Schmitt trigger input | 261366CX | SN74AC14N |23 | .21 | .20 |
| 74AC20 | SOIC-14 | 4-input NAND gate | 264233CX | CD74AC20M |26 | .23 | .18 |
| 74AC20 | DIP-14 | 4-input NAND gate | 261382CX | CD74AC20N |32 | .26 | .18 |
| 74AC32 | SOIC-14 | Quad 2-input OR gate | 264268CX | SN74AC32D |26 | .23 | .18 |
| 74AC32 | DIP-14 | Quad 2-input OR gate | 261391CX | SN74AC32N |41 | .34 | .25 |
| 74AC74 | SOIC-14 | Dual D-type pos. edge-triggered flip-flop | 264284CX | SN74AC74D |31 | .26 | .16 |
| 74AC74 | DIP-14 | Dual D-type pos. edge-triggered flip-flop | 261403CX | SN74AC74N |40 | .34 | .24 |
| 74AC86 | SOIC-14 | Quad 2-input exclusive OR gate | 264305CX | SN74AC86D |20 | .17 | .14 |
| 74AC86 | DIP-14 | Quad 2-input exclusive OR gate | 261454CX | SN74AC86N |32 | .26 | .18 |
| 74AC109 | SOIC-16 | Dual JK positive edge triggered flip-flop | | | | | |
| 74AC109 | DIP-16 | Dual JK positive edge triggered flip-flop | 261462CX | CD74AC109E |47 | .40 | .29 |
| 74AC125 | SOIC-16 | Quad buffer with 3-state outputs | | | | | |
| 74AC125 | DIP-14 | Quad buffer with 3-state outputs | | | | | |
| 74AC138 | SOIC-16 | 1 of 8 decoder/demultiplexer | 264364CX | CD74AC138M |41 | .34 | .23 |
| 74AC138 | DIP-16 | 1 of 8 decoder/demultiplexer | 261471CX | CD74AC138E |46 | .35 | .27 |
| 74AC139 | SOIC-16 | Dual 1 of 4 decoder/demultiplexer | 264508CX | CD74AC139M |56 | .43 | .36 |
| 74AC139 | DIP-16 | Dual 1 of 4 decoder/demultiplexer | 261500CX | CD74AC139E |49 | .41 | .29 |
| 74AC151 | SOIC-16 | Quad buffer with 3-state outputs | | | | | |
| 74AC151 | DIP-16 | Quad buffer with 3-state outputs | 261526CX | CD74AC151E |46 | .35 | .26 |
| 74AC153 | SOIC-16 | Dual 4-input multiplexer | 264532CX | CD74AC153M |42 | .36 | .26 |
| 74AC153 | DIP-16 | Dual 4-input multiplexer | 261534CX | CD74AC153E |49 | .41 | .29 |
| 74AC157 | SOIC-16 | Quad 2-input multiplexer | 264559CX | CD74AC157M |41 | .38 | .34 |
| 74AC157 | DIP-16 | Quad 2-input multiplexer | 261542CX | CD74AC157E |47 | .36 | .27 |
| 74AC161 | SOIC-16 | Synchronous presettable binary counter | 264575CX | CD74AC161M |34 | .31 | .27 |
| 74AC161 | DIP-16 | Synchronous presettable binary counter | 261551CX | CD74AC161E |46 | .35 | .26 |
| 74AC163 | SOIC-16 | Binary counter | 264591CX | CD74AC163M |49 | .41 | .36 |
| 74AC163 | DIP-16 | Binary counter | 261585CX | CD74AC163E |50 | .38 | .29 |
| 74AC169 | SOIC-16 | 4-stage synchronous bidirectional counter | | | | | |
| 74AC169 | DIP-16 | 4-stage synchronous bidirectional counter | | | | | |
| 74AC174 | SOIC-16 | HEX D-type flip-flop w/ master reset | 264858CX | CD74AC174M |46 | .35 | .27 |
| 74AC174 | DIP-16 | HEX D-type flip-flop w/ master reset | 261593CX | CD74AC174E |50 | .38 | .29 |
| 74AC175 | SOIC-16 | Quad D-type flip-flop | 264874CX | CD74AC175M |46 | .35 | .26 |
| 74AC175 | DIP-16 | Quad D-type flip-flop | | | | | |
| 74AC191 | SOIC-16 | Up/down counter w/ preset & ripple clock | | | | | |
| 74AC191 | DIP-16 | Up/down counter w/ preset & ripple clock | | | | | |
| 74AC240 | SOIC-20 | Octal buffer/line driv. w/ 3-st. outputs | 264971CX | SN74AC240DW |45 | .36 | .28 |
| 74AC240 | DIP-20 | Octal buffer/line driv. w/ 3-st. outputs | 261614CX | SN74AC240N |32 | .28 | .22 |
| 74AC241 | SOIC-20 | Octal buffer/line driver w/ 3-state outputs | 265543CX | SN74AC241DW |45 | .36 | .28 |

† Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.

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| Base No. | Package | Description |
|----------|---------|---|
| 74AC241 | DIP-20 | Octal buffer/line driver w/ 3-state outputs |
| 74AC244 | SOIC-20 | Octal buffer/line driv. w/ 3-st. outputs |
| 74AC244 | DIP-20 | Octal buffer/line driv. w/ 3-st. outputs |
| 74AC245 | SOIC-20 | Octal bidirectional trans. w/ 3-state I/O |
| 74AC245 | DIP-20 | Octal bidirectional trans. w/ 3-state I/O |
| 74AC251 | SOIC-16 | 8-input multiplexer w/ 3-state output |
| 74AC251 | DIP-16 | 8-input multiplexer w/ 3-state output |
| 74AC253 | SOIC-16 | Dual 4-input multiplexer w/ 3-state outputs |
| 74AC253 | DIP-16 | Dual 4-input multiplexer w/ 3-state outputs |
| 74AC257 | SOIC-16 | Quad 2-input multiplexer |
| 74AC257 | DIP-16 | Quad 2-input multiplexer |
| 74AC273 | SOIC-20 | Octal D-type flip-flop |
| 74AC273 | DIP-20 | Octal D-type flip-flop |
| 74AC299 | SOIC-20 | 8-input univ. shift/storage reg. w/com. parallel I/O pins |
| 74AC299 | DIP-20 | 8-input univ. shift/storage reg. w/com. parallel I/O pins |
| 74AC373 | SOIC-20 | Octal transparent latch w/ 3-state outputs |
| 74AC373 | DIP-20 | Octal transparent latch w/ 3-state outputs |
| 74AC374 | SOIC-20 | Octal D-type flip-flop w/ 3-state outputs |
| 74AC374 | DIP-20 | Octal D-type flip-flop w/ 3-state outputs |
| 74AC377 | SOIC-20 | Octal D-type flip flop w/ clock enable |
| 74AC377 | DIP-20 | Octal D-type flip flop w/ clock enable |
| 74AC399 | DIP-16 | Quad 2-port register |
| 74AC521 | SOIC-20 | 8-bit identity comparator |
| 74AC521 | DIP-20 | 8-bit identity comparator |
| 74AC540 | SOIC-20 | Octal buffer/line driver w/ 3-state outputs |
| 74AC540 | DIP-20 | Octal buffer/line driver w/ 3-state outputs |
| 74AC541 | SOIC-20 | Octal buffer/line driver w/ 3-state outputs |
| 74AC541 | DIP-20 | Octal buffer/line driver w/ 3-state outputs |
| 74AC573 | SOIC-20 | Octal latch w/ 3-state outputs |
| 74AC573 | DIP-20 | Octal latch w/ 3-state outputs |
| 74AC574 | SOIC-20 | Octal D-type flip-flop w/ 3-state outputs |
| 74AC574 | DIP-20 | Octal D-type flip-flop w/ 3-state outputs |

| Part No. | T.I. Product No. | 1 | 10 | 100 |
|----------|------------------|-----|-----|-----|
| 261729CX | SN74AC241N | .36 | .28 | .28 |
| 265560CX | SN74AC244DW | .45 | .36 | .28 |
| 261796CX | SN74AC244N | .32 | .26 | .23 |
| 265594CX | SN74AC245DW | .45 | .36 | .28 |
| 261817CX | SN74AC245N | .40 | .35 | .33 |
| 265615CX | CD74AC251M | .54 | .47 | .39 |
| 265640CX | CD74AC253M | .49 | .37 | .28 |
| 265666CX | CD74AC257M | .41 | .37 | .28 |
| 261956CX | CD74AC257E | .41 | .38 | .36 |
| 265682CX | CD74AC273M | .56 | .53 | .46 |
| 261964CX | CD74AC273E | .33 | .25 | .23 |
| 265703CX | SN74AC373DW | .56 | .52 | .49 |
| 261981CX | SN74AC373N | .54 | .38 | .32 |
| 265720CX | SN74AC374DW | .33 | .33 | .29 |
| 262035CX | SN74AC374N | .65 | .59 | .53 |
| 265746CX | CD74AC540M | .83 | .74 | .60 |
| 265762CX | CD74AC541M | .83 | .74 | .55 |
| 262051CX | CD74AC541E | .83 | .66 | .50 |
| 265789CX | CD74AC573DW | .45 | .36 | .28 |
| 262086CX | SN74AC573N | .41 | .36 | .34 |
| 265800CX | SN74AC574DW | .45 | .36 | .28 |
| 262094CX | SN74AC574N | .63 | .56 | .49 |



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| Part No. | Cross Ref. | 1 | 10 | 100 |
|----------|------------|----------------------|------|------|
| 238844CX | 74AC241N | \$.44 .41 | .33 | .25 |
| 265551CX | 74AC244M | .41 | .33 | .25 |
| 211908CX | 74AC244N | .29 | .25 | .18 |
| 265586CX | 74AC245M | .41 | .33 | .25 |
| 211916CX | 74AC245N | .36 | .30 | .23 |
| 265607CX | 74AC251M | .49 | .43 | .35 |
| 238852CX | 74AC251N | .41 | .38 | .34 |
| 265623CX | 74AC253M | .44 | .34 | .25 |
| 238861CX | 74AC253N | .42 | .32 | .24 |
| 265658CX | 74AC257M | .38 | .32 | .25 |
| 238879CX | 74AC257N | .38 | .35 | .33 |
| 265674CX | 74AC273M | .51 | .48 | .45 |
| 211924CX | 74AC273N | .42 | .36 | .27 |
| 265826CX | 74AC299M | 1.79 | 1.45 | 1.09 |
| 238924CX | 74AC299N | 1.35 | 1.25 | 1.05 |
| 265691CX | 74AC373M | .51 | .48 | .45 |
| 211932CX | 74AC373N | .40 | .34 | .26 |
| 265711CX | 74AC374M | .30 | .29 | .25 |
| 211941CX | 74AC374N | .41 | .38 | .31 |
| 265851CX | 74AC377M | .66 | .61 | .54 |
| 242763CX | 74AC377N | .71 | .60 | .46 |
| 238941CX | 74AC399N | 1.84 1.85 | 1.69 | 1.52 |
| 265869CX | 74AC521M | 1.55 | 1.40 | 1.26 |
| 238959CX | 74AC521N | .98 | .91 | .77 |
| 238967CX | 74AC540N | .54 | .49 | .46 |
| 265738CX | 74AC540M | .75 | .67 | .55 |
| 238975CX | 74AC541N | .59 | .52 | .45 |
| 265754CX | 74AC541M | .75 | .67 | .55 |
| 265771CX | 74AC573M | .41 | .33 | .25 |
| 238983CX | 74AC573N | .37 | .33 | .31 |
| 265797CX | 74AC574M | .41 | .33 | .25 |
| 238991CX | 74AC574N | \$.57 .57 | .50 | .45 |

74ACT Series – ACT family offers TTL inputs with CMOS outputs



| Base No. | Package | Description |
|----------|---------|---|
| 74ACT00 | SOIC-14 | Quad 2-input NAND gate |
| 74ACT00 | DIP-14 | Quad 2-input NAND gate |
| 74ACT02 | SOIC-14 | Quad 2-input NOR gate |
| 74ACT02 | DIP-14 | Quad 2-input NOR gate |
| 74ACT04 | SOIC-14 | Hex inverter |
| 74ACT04 | DIP-14 | Hex inverter |
| 74ACT08 | SOIC-14 | Quad 2-input AND gate |
| 74ACT08 | DIP-14 | Quad 2-input AND gate |
| 74ACT10 | SOIC-14 | Triple 3-input NAND gate |
| 74ACT10 | DIP-14 | Triple 3-input NAND gate |
| 74ACT14 | SOIC-14 | Hex inverter with Schmitt trigger input |
| 74ACT14 | DIP-14 | Hex inverter with Schmitt trigger input |
| 74ACT32 | SOIC-14 | Quad 2-input OR gate |
| 74ACT32 | DIP-14 | Quad 2-input OR gate |
| 74ACT74 | SOIC-14 | Dual D-type pos. edge-triggered flip-flop |
| 74ACT74 | DIP-14 | Dual D-type pos. edge-triggered flip-flop |
| 74ACT86 | SOIC-14 | Quad 2-input exclusive OR gate |
| 74ACT86 | DIP-14 | Quad 2-input exclusive OR gate |
| 74ACT125 | SOIC-14 | Quad buffer with 3-state outputs |
| 74ACT125 | DIP-14 | Quad buffer with 3-state outputs |



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Mixed Major Brands – Save up to 20%

| Part No. | Cross Ref. | 1 | 10 | 100 |
|----------|------------|----------------------|-----|-----|
| 265877CX | 74ACT00M | * | .17 | .14 |
| 211959CX | 74ACT00N | .25 | .23 | .17 |
| 265914CX | 74ACT02M | .20 | .18 | .14 |
| 211967CX | 74ACT02N | .28 | .24 | .18 |
| 265957CX | 74ACT04M | .20 | .18 | .14 |
| 211975CX | 74ACT04N | .25 | .21 | .16 |
| 266159CX | 74ACT08M | * | .17 | .13 |
| 211983CX | 74ACT08N | * | .16 | .12 |
| 266263CX | 74ACT10M | .26 | .23 | .19 |
| 239046CX | 74ACT10N | .20 | .18 | .14 |
| 266298CX | 74ACT14M | .20 | .18 | .14 |
| 211991CX | 74ACT14N | .23 | .18 | .14 |
| 266360CX | 74ACT32M | .20 | .18 | .14 |
| 212003CX | 74ACT32N | .28 | .24 | .17 |
| 266423CX | 74ACT74M | .27 | .23 | .18 |
| 212011CX | 74ACT74N | .25 | .23 | .19 |
| 266440CX | 74ACT86M | .28 | .27 | .19 |
| 212020CX | 74ACT86N | .20 | .18 | .14 |
| 266466CX | 74ACT125M | .86 | .73 | .59 |
| 239003CX | 74ACT125N | \$.84 .82 | .29 | .24 |

† Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.

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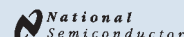
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|----------|---------|---|
| 74ACT138 | SOIC-16 | 1 of 8 decoder/demultiplexer |
| 74ACT138 | DIP-16 | 1 of 8 decoder/demultiplexer |
| 74ACT139 | SOIC-16 | Dual 1 of 4 decoder/demultiplexer |
| 74ACT139 | DIP-16 | Dual 1 of 4 decoder/demultiplexer |
| 74ACT151 | SOIC-16 | 8-input multiplexer |
| 74ACT151 | DIP-16 | 8-input multiplexer |
| 74ACT157 | SOIC-16 | Quad 2-input multiplexer |
| 74ACT157 | DIP-16 | Quad 2-input multiplexer |
| 74ACT161 | SOIC-16 | Synchronous binary counter |
| 74ACT161 | DIP-16 | Synchronous binary counter |
| 74ACT163 | SOIC-16 | Synchronous presettable binary counter |
| 74ACT163 | DIP-16 | Synchronous presettable binary counter |
| 74ACT174 | SOIC-16 | HEX D-type flip-flop with master reset |
| 74ACT174 | DIP-16 | HEX D-type flip-flop with master reset |
| 74ACT175 | SOIC-16 | Quad D-type flip-flop |
| 74ACT175 | DIP-16 | Quad D-type flip-flop |
| 74ACT240 | SOIC-20 | Octal buffer/line driv. w/ 3-st. outputs |
| 74ACT240 | DIP-20 | Octal buffer/line driv. w/ 3-st. outputs |
| 74ACT241 | SOIC-20 | Octal buffer/line driver with 3-state outputs |
| 74ACT241 | DIP-20 | Octal buffer/line driver with 3-state outputs |
| 74ACT244 | SOIC-20 | Octal buffer/line driv. w/ 3-st. outputs |
| 74ACT244 | DIP-20 | Octal buffer/line driv. w/ 3-st. outputs |
| 74ACT245 | SOIC-20 | Octal bidirectional trans. w/ 3-state I/O |
| 74ACT245 | DIP-20 | Octal bidirectional trans. w/ 3-state I/O |
| 74ACT251 | SOIC-16 | 8-input multiplexer |
| 74ACT251 | DIP-16 | 8-input multiplexer |
| 74ACT257 | SOIC-16 | Quad 2-input multiplexer with 3-st. outputs |
| 74ACT257 | DIP-16 | Quad 2-input multiplexer with 3-st. outputs |
| 74ACT273 | SOIC-20 | Octal D-type flip-flop |
| 74ACT273 | DIP-20 | Octal D-type flip-flop |
| 74ACT373 | SOIC-20 | Octal transparent latch w/ 3-state outputs |
| 74ACT373 | DIP-20 | Octal transparent latch w/ 3-state outputs |
| 74ACT374 | SOIC-20 | Octal D-type flip-flop w/ 3-state outputs |
| 74ACT374 | DIP-20 | Octal D-type flip-flop w/ 3-state outputs |
| 74ACT521 | SOIC-20 | 8-bit identity comparator |
| 74ACT521 | DIP-20 | 8-bit identity comparator |
| 74ACT533 | SOIC-20 | Octal transparent latch w/ 3-state outputs |
| 74ACT533 | DIP-20 | Octal transparent latch w/ 3-state outputs |
| 74ACT541 | SOIC-20 | Octal buffer/line driver with 3-state outputs |
| 74ACT541 | DIP-20 | Octal buffer/line driver with 3-state outputs |
| 74ACT573 | SOIC-20 | Octal latch with 3-state outputs |
| 74ACT573 | DIP-20 | Octal latch with 3-state outputs |
| 74ACT574 | SOIC-20 | Octal D-type flip-flop |
| 74ACT574 | DIP-20 | Octal D-type flip-flop |
| 74ACT715 | SOIC-20 | Programmable video sync. generator |
| 74ACT715 | DIP-20 | Programmable video sync. generator |

[†] Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.



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|-----------|------------|-------|-------|------|
| 266474CX | 74ACT138M | .32 | .29 | .22 |
| 212038CX | 74ACT138N | .23 | .20 | .15 |
| 266491CX | 74ACT139M | .37 | .30 | .23 |
| 239011CX | 74ACT139N | .38 | .31 | .21 |
| 266511CX | 74ACT151M | .39 | .30 | .23 |
| 239020CX | 74ACT151N | .51 | .39 | .29 |
| 266520CX | 74ACT157M | .30 | .27 | .23 |
| 239038CX | 74ACT157N | .39 | .30 | .23 |
| 266546CX | 74ACT161M | .63 | .57 | .48 |
| 239071CX | 74ACT161N | .39 | .32 | .27 |
| 266562CX | 74ACT163M | .39 | .30 | .23 |
| 239062CX | 74ACT163N | .49 | .37 | .29 |
| 266600CX | 74ACT174M | .38 | .35 | .33 |
| 239054CX | 74ACT174N | .48 | .42 | .31 |
| 266677CX | 74ACT175M | .55 | .49 | .40 |
| 239089CX | 74ACT175N | .55 | .49 | .40 |
| 266731CX | 74ACT240M | .46 | .37 | .29 |
| 212046CX | 74ACT240N | .30 | .26 | .19 |
| 266765CX | 74ACT241M | .41 | .33 | .25 |
| 239097CX | 74ACT241N | .41 | .33 | .25 |
| 266896CX | 74ACT244M | .32 | .27 | .24 |
| 212054CX | 74ACT244N | .41 | .33 | .25 |
| 266917CX | 74ACT245M | .40 | .33 | .25 |
| 212062CX | 74ACT245N | .38 | .33 | .25 |
| 266933CX | 74ACT251M | .46 | .35 | .26 |
| 239100CX | 74ACT251N | .46 | .35 | .27 |
| 266941CX | 74ACT257M | .38 | .35 | .33 |
| 239126CX | 74ACT257N | .36 | .29 | .24 |
| 266976CX | 74ACT273M | .46 | .37 | .29 |
| 212071CX | 74ACT273N | .37 | .34 | .23 |
| 266992CX | 74ACT373M | .40 | .33 | .25 |
| 212089CX | 74ACT373N | .41 | .33 | .25 |
| 267012CX | 74ACT374M | .41 | .33 | .25 |
| 212097CX | 74ACT374N | .40 | .33 | .25 |
| 267055CX | 74ACT521M | .44 | .36 | .30 |
| 235230CX | 74ACT521N | .79 | .60 | .45 |
| 267071CX | 74ACT533M | .44 | .34 | .26 |
| 235248CX | 74ACT533N | .52 | .47 | .43 |
| 74ACT541M | 74ACT541M | .39 | .35 | .29 |
| 235264CX | 74ACT541N | .41 | .33 | .25 |
| 267274CX | 74ACT573M | .41 | .33 | .25 |
| 235272CX | 74ACT573N | .57 | .54 | .41 |
| 267338CX | 74ACT574M | .41 | .33 | .25 |
| 235281CX | 74ACT574N | .57 | .54 | .41 |
| 267371CX | 74ACT715M | 11.39 | 10.24 | 7.78 |
| 235299CX | 74ACT715N | 8.69 | 8.24 | 7.49 |

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| Family | Package | TI | Jameco | Fairchild | On Semi | ST Micro | Philips | Toshiba |
|--------|---------|------------------|----------------|------------------|---------------|----------------|-------------|--------------------|
| HC(T) | DIP | SN74HC(T)XXXN | 74HC(T)XXXN | MM74HC(T)XXXN | MC74HC(T)XXXN | M74HC(T)XXXBIR | 74HC(T)XXXN | TC74HC(T)XXXAP |
| | DIP | CD74HC(T)XXE | 74HC(T)XXXN | MM74HC(T)XXXN | MC74HC(T)XXXN | M74HC(T)XXXBIR | 74HC(T)XXXN | TC74HC(T)XXXAP |
| | SOIC | SN74HC(T)XXXD/DW | 74HC(T)XXXM/WM | MM74HC(T)XXXM/WM | MC74HC(T)XXXD | M74HC(T)XXXMIR | 74HC(T)XXXD | TC74HC(T)XXXAF/AFW |
| | SOIC | CD74HC(T)XXXM | 74HC(T)XXXM/WM | MM74HC(T)XXXM/WM | MC74HC(T)XXXD | M74HC(T)XXXMIR | 74HC(T)XXXD | TC74HC(T)XXXAF/AFW |

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|----------|---------|---|----------|------------------|------|------|------|----------|------------|------|------|------|
| 74HC00 | SOIC-14 | Quad 2-input NAND gate | 251889CX | SN74HC00D | .23 | .15 | .10 | 197106CX | 74HC00M | .21 | .13 | .09 |
| 74HC00 | DIP-14 | Quad 2-input NAND gate | 250966CX | SN74HC00N | .24 | .23 | .16 | 45161CX | 74HC00N | .22 | .19 | .15 |
| 74HC02 | SOIC-14 | Quad 2-input NOR gate | 251926CX | SN74HC02D | .23 | .22 | .20 | 197114CX | 74HC02M | .21 | .20 | .18 |
| 74HC02 | DIP-14 | Quad 2-input NOR gate | 250974CX | SN74HC02N | * | .18 | .13 | 45188CX | 74HC02N | * | .15 | .11 |
| 74HC04 | SOIC-14 | Hex inverter (buffered) | 251934CX | SN74HC04D | .22 | .17 | .16 | 197122CX | 74HC04M | .20 | .16 | .15 |
| 74HC04 | DIP-14 | Hex inverter (buffered) | 250982CX | SN74HC04N | .25 | .22 | .17 | 45209CX | 74HC04N | .23 | .19 | .16 |
| 74HC08 | SOIC-14 | Quad 2-input AND gate | 251942CX | SN74HC08D | .23 | .20 | .19 | 197131CX | 74HC08M | .21 | .17 | .15 |
| 74HC08 | DIP-14 | Quad 2-input AND gate | 251002CX | SN74HC08N | .20 | .16 | .11 | 45225CX | 74HC08N | * | .13 | .10 |
| 74HC10 | SOIC-14 | Triple 3-input NAND gate | 251951CX | SN74HC10D | .31 | .28 | .20 | 243272CX | 74HC10M | .29 | .26 | .18 |
| 74HC10 | DIP-14 | Triple 3-input NAND gate | 251011CX | SN74HC10N | .25 | .20 | .14 | 45233CX | 74HC10N | .23 | .18 | .13 |
| 74HC11 | DIP-14 | Triple 3-input AND gate | 251037CX | SN74HC11N | .31 | .28 | .20 | 45268CX | 74HC11N | .29 | .26 | .18 |
| 74HC14 | SOIC-14 | Hex inverter Schmitt trigger | 251969CX | SN74HC14D | .24 | .22 | .20 | 197149CX | 74HC14M | .22 | .20 | .18 |
| 74HC14 | DIP-14 | Hex inverter Schmitt trigger | 251045CX | SN74HC14N | .24 | .21 | .18 | 45364CX | 74HC14N | .22 | .19 | .17 |
| 74HC30 | SOIC-14 | 8-input NAND gate | 251985CX | CD74HC30M | .31 | .28 | .20 | 243281CX | 74HC30M | .29 | .26 | .18 |
| 74HC30 | DIP-14 | 8-input NAND gate | 251070CX | CD74HC30E | .31 | .28 | .20 | 45786CX | 74HC30N | .29 | .26 | .18 |
| 74HC32 | SOIC-14 | Quad 2-input OR gate | 251993CX | SN74HC32D | * | .16 | .12 | 197157CX | 74HC32M | * | .13 | .11 |
| 74HC32 | DIP-14 | Quad 2-input OR gate | 251088CX | SN74HC32N | .30 | .25 | .22 | 45794CX | 74HC32N | .28 | .23 | .20 |
| 74HC74 | SOIC-14 | Dual D flip-flop | 252030CX | SN74HC74D | .22 | .18 | .17 | 197165CX | 74HC74M | .20 | .17 | .13 |
| 74HC74 | DIP-14 | Dual D flip-flop | 251096CX | SN74HC74N | .38 | .35 | .31 | 46130CX | 74HC74N | .35 | .32 | .29 |
| 74HC85 | SOIC-16 | 4-bit magnitude comparator | 252048CX | CD74HC85M | .59 | .54 | .49 | 243299CX | 74HC85M | .43 | .41 | .37 |
| 74HC85 | DIP-16 | 4-bit magnitude comparator | 251109CX | CD74HC85E | .47 | .45 | .40 | 46172CX | 74HC85N | .45 | .44 | .34 |
| 74HC86 | SOIC-14 | Quad Exclusive OR gate | 252056CX | SN74HC86D | * | .16 | .15 | 243301CX | 74HC86M | * | .15 | .14 |
| 74HC86 | DIP-14 | Quad Exclusive-OR gate | 251133CX | SN74HC86N | .27 | .24 | .22 | 46181CX | 74HC86N | .25 | .22 | .20 |
| 74HC123 | SOIC-16 | Dual retriggerable monostable multivibrator | 252064CX | CD74HC123M | .41 | .34 | .23 | 243310CX | 74HC123M | .38 | .31 | .21 |
| 74HC123 | DIP-16 | Dual retriggerable monostable multivibrator | 251184CX | CD74HC123E | .40 | .33 | .23 | 45292CX | 74HC123N | .37 | .30 | .21 |
| 74HC125 | SOIC-14 | Quad bus buffer tri-state | 252072CX | SN74HC125D | * | .15 | .14 | 243328CX | 74HC125M | * | .14 | .13 |
| 74HC125 | DIP-14 | Quad bus buffer tri-state | 251192CX | SN74HC125N | .33 | .29 | .24 | 45305CX | 74HC125N | .30 | .27 | .22 |
| 74HC132 | SOIC-14 | Quad 2-input NAND Schmitt trigger | 252099CX | SN74HC132D | .23 | .19 | .17 | 243731CX | 74HC132M | .21 | .18 | .16 |
| 74HC132 | DIP-14 | Quad 2-input NAND Schmitt trigger | 251205CX | SN74HC132N | .35 | .29 | .20 | 45321CX | 74HC132N | .32 | .27 | .18 |
| 74HC138 | SOIC-16 | 3-to-8 decoder/demultiplexer | 252099CX | SN74HC138D | .32 | .27 | .20 | 197173CX | 74HC138M | .29 | .25 | .18 |
| 74HC138 | DIP-16 | 3-to-8 decoder/demultiplexer | 251213CX | SN74HC138N | .33 | .29 | .20 | 45330CX | 74HC138N | .30 | .27 | .18 |
| 74HC139 | SOIC-16 | 2 to 4 decoder/demultiplexer | 252101CX | SN74HC139D | .35 | .29 | .20 | 243740CX | 74HC139M | .32 | .27 | .18 |
| 74HC139 | DIP-16 | 2-to 4 decoder/demultiplexer | 251221CX | SN74HC139N | .40 | .34 | .25 | 45356CX | 74HC139N | .37 | .31 | .23 |
| 74HC154 | SOIC-24 | 4/16 line decoder | 252110CX | CD74HC154M | .45 | .34 | .25 | 243758CX | 74HC154WM | .40 | .30 | .23 |
| 74HC154 | DIP-24 | 4/16 line decoder (.6"W) | 251230CX | CD74HC154E | .88 | .72 | .65 | 111739CX | 74HC154WN | .75 | .65 | .58 |
| 74HC154 | DIP-24 | 4/16 line decoder (.3"W) | 251248CX | CD74HC154EN | .81 | .70 | .63 | 45401CX | 74HC154N | .78 | .64 | .58 |
| 74HC157 | SOIC-16 | Quad 2-input multiplexer | 252136CX | SN74HC157D | .23 | .19 | .17 | 243766CX | 74HC157M | .21 | .18 | .16 |
| 74HC157 | DIP-16 | Quad 2-input multiplexer | 252199CX | SN74HC157N | .40 | .33 | .25 | 45428CX | 74HC157N | .37 | .30 | .23 |
| 74HC161 | SOIC-16 | Synchronous 4-bit counter | 252144CX | SN74HC161D | .30 | .23 | .20 | 243774CX | 74HC161M | .28 | .21 | .18 |
| 74HC161 | DIP-16 | Synchronous 4-bit counter | 251301CX | SN74HC161N | .39 | .33 | .25 | 45452CX | 74HC161N | .36 | .31 | .23 |
| 74HC163 | DIP-16 | Synchronous 4-bit counter | 251310CX | SN74HC163N | .30 | .25 | .24 | 45479CX | 74HC163N | .28 | .23 | .22 |
| 74HC164 | SOIC-14 | 8-bit serial shift register | 252152CX | SN74HC164D | .40 | .33 | .25 | 197181CX | 74HC164M | .37 | .30 | .23 |
| 74HC164 | DIP-14 | 8-bit serial shift register | 251328CX | SN74HC164N | .41 | .33 | .25 | 45487CX | 74HC164N | .38 | .30 | .23 |
| 74HC165 | SOIC-16 | Parallel load 8-bit serial shift register | 252161CX | SN74HC165D | .36 | .29 | .22 | 197190CX | 74HC165M | .30 | .27 | .20 |
| 74HC165 | DIP-16 | Parallel load 8-bit serial shift register | 251336CX | SN74HC165N | .35 | .30 | .22 | 45495CX | 74HC165N | .32 | .28 | .25 |
| 74HC174 | SOIC-16 | Hex D flip-flop with clear | 252179CX | SN74HC174D | .27 | .23 | .21 | 243782CX | 74HC174M | .25 | .21 | .19 |
| 74HC174 | DIP-16 | Hex D flip-flop with clear | 251352CX | SN74HC174N | .41 | .33 | .25 | 45508CX | 74HC174N | .38 | .30 | .23 |
| 74HC192 | DIP-16 | Decade up/down counter with clear | 251395CX | CD74HC192E | 1.72 | 1.57 | 1.39 | 45541CX | 74HC192N | 1.59 | 1.45 | 1.29 |
| 74HC193 | SOIC-16 | Binary up/down counter with clear | 252187CX | SN74HC193D | .30 | .26 | .23 | 243791CX | 74HC193M | .28 | .25 | .21 |
| 74HC193 | DIP-16 | Binary up/down counter with clear | 251387CX | SN74HC193N | .34 | .27 | .25 | 45559CX | 74HC193N | .31 | .26 | .23 |
| 74HC221 | SOIC-16 | Dual mono. multivibrator Schmitt trigger | 252259CX | CD74HC221M | .48 | .45 | .42 | 243803CX | 74HC221AM | .43 | .41 | .37 |

[†] Note: TI now owns GE, Harris & RCA logic; Fairchild now owns National Semi logic; Philips now owns Signetics; and On Semi is also known as Motorola.

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|----------|-------------|--|-----------------------|------|------|------|--------------------|------------|-----|-----|-------|
| 74HC221 | DIP-16 | Dual mono. multivibrator Schmitt trigger | 251408CX CD74HC221E | .48 | .40 | .30 | 45604CX 74HC221N | | .43 | .35 | \$.27 |
| 74HC240 | SOIC-20 | Octal inverting line driver tri-state | 252267CX SN74HC240DW | .34 | .29 | .22 | 243811CX 74HC240WM | | .31 | .27 | .20 |
| 74HC240 | DIP-20 | Octal inverting line driver tri-state | 251416CX SN74HC240N | .34 | .32 | .26 | 45612CX 74HC240N | | .30 | .22 | .20 |
| 74HC244 | SOIC-20 | Octal driver tri-state | 252275CX SN74HC244DW | .34 | .29 | .22 | 197202CX 74HC244M | | .31 | .27 | .20 |
| 74HC244 | DIP-20 | Octal driver tri-state | 251424CX SN74HC244N | .49 | .42 | .31 | 45655CX 74HC244N | | .45 | .39 | .39 |
| 74HC245 | SOIC-20 | Octal transceiver tri-state | 252291CX SN74HC245DW | .34 | .29 | .22 | 197211CX 74HC245M | | .31 | .27 | .20 |
| 74HC245 | DIP-20 | Octal transceiver tri-state | 251432CX SN74HC245N | .49 | .41 | .31 | 45671CX 74HC245N | | .45 | .38 | .29 |
| 74HC273 | SOIC-20 | Octal D-type flip-flops with clear | 252304CX SN74HC273DW | .35 | .29 | .22 | 243820CX 74HC273WM | | .32 | .27 | .20 |
| 74HC273 | DIP-20 | Octal D-type flip-flop with clear | 251459CX SN74HC273N | .26 | .23 | .19 | 45743CX 74HC273N | | .24 | .20 | .15 |
| 74HC373 | SOIC-20 | Octal D-type flip-flop tri-state | 252312CX SN74HC373DW | .34 | .29 | .22 | 197229CX 74HC373M | | .31 | .27 | .20 |
| 74HC373 | DIP-20 | Octal D-type flip-flop tri-state | 251475CX SN74HC373N | .49 | .42 | .38 | 45831CX 74HC373N | | .45 | .39 | .35 |
| 74HC374 | SOIC-20 | Octal D-type flip-flop edge-trig tri-state | 252321CX SN74HC374DW | .34 | .29 | .22 | 197237CX 74HC374M | | .31 | .27 | .20 |
| 74HC374 | DIP-20 | Octal D-type flip-flop edge-trig tri-state | 251483CX SN74HC374N | .53 | .42 | .31 | 45858CX 74HC374N | | .49 | .39 | .29 |
| 74HC393 | SOIC-14 | Dual 4-bit binary counter | 252339CX SN74HC393D | .32 | .29 | .275 | 243838CX 74HC393M | | .29 | .27 | .20 |
| 74HC393 | DIP-14 | Dual 4-bit binary counter | 251504CX SN74HC393N | .36 | .29 | .22 | 45874CX 74HC393N | | .33 | .27 | .20 |
| 74HC540 | SOIC-20 | Octal invert. buffer/line driver tri-state | 252347CX SN74HC540DW | .32 | .28 | .24 | 243846CX 74HC540WM | | .29 | .27 | .22 |
| 74HC540 | DIP-20 | Octal invert. buffer/line driver tri-state | 251512CX SN74HC540N | .36 | .29 | .22 | 109760CX 74HC540N | | .33 | .27 | .20 |
| 74HC541 | SOIC-20 | Octal buffer/line driver tri-state | 252355CX SN74HC541DW | .36 | .29 | .22 | 243854CX 74HC541WM | | .33 | .27 | .22 |
| 74HC541 | DIP-20 | Octal buffer/line driver tri-state | 251521CX SN74HC541N | .36 | .29 | .22 | 46050CX 74HC541N | | .33 | .27 | .20 |
| 74HC573 | SOIC-20 | Octal D-type flip-flop tri-state | 252363CX SN74HC573ADW | .36 | .29 | .22 | 197245CX 74HC573M | | .33 | .27 | .20 |
| 74HC573 | DIP-20 | Octal D-type flip-flop tri-state | 251547CX SN74HC573AN | .36 | .29 | .22 | 46076CX 74HC573N | | .33 | .27 | .20 |
| 74HC574 | SOIC-20 | Octal D-type flip-flop tri-state | 252371CX SN74HC574DW | .30 | .25 | .18 | 197253CX 74HC574M | | .28 | .23 | .17 |
| 74HC574 | DIP-20 | Octal D-type flip-flop tri-state | 251555CX SN74HC574N | .36 | .29 | .22 | 46084CX 74HC574N | | .33 | .27 | .20 |
| 74HC590 | DIP-16 | 8-bit binary counter w/ output reg. tri-state | 251635CX SN74HC590AN | .33 | .26 | .24 | 88090CX 74HC590N | | .30 | .26 | .19 |
| 74HC595 | SOIC-16 | 8-bit serial-to-parallel shift reg. tri-state | 252523CX SN74HC595D | .34 | .29 | .27 | 245075CX 74HC595M | | .31 | .27 | .25 |
| 74HC595 | DIP-16 | 8-bit serial-to-parallel shift reg. tri-state | 251643CX SN74HC595N | .67 | .48 | .42 | 46105CX 74HC595N | | .62 | .44 | .39 |
| 74HC688 | SOIC-20 | 8-bit mag. comparator | 252531CX SN74HC688DW | .52 | .46 | .43 | 245083CX 74HC688WM | | .48 | .42 | .40 |
| 74HC688 | DIP-20 | 8-bit mag. comparator | 251651CX SN74HC688N | .57 | .49 | .46 | 46113CX 74HC688N | | .52 | .42 | .31 |
| 74HC4017 | DIP-16 | Decade ctr./div. with 10 decoded outputs | 251660CX CD74HC4017E | .56 | .51 | .39 | 45891CX 74HC4017N | | .50 | .42 | .32 |
| 74HC4020 | SOIC-16 | 14-stage binary counter | 252540CX SN74HC4020D | .45 | .20 | .18 | 245091CX 74HC4020M | | .41 | .20 | .17 |
| 74HC4020 | DIP-16 | 14-stage binary counter | 251678CX CD74HC4020E | .47 | .38 | .285 | 45903CX 74HC4020N | | .41 | .33 | .26 |
| 74HC4040 | SOIC-16 | 12-stage binary counter | 252558CX SN74HC4040D | .27 | .25 | .22 | 245104CX 74HC4040M | | .25 | .23 | .18 |
| 74HC4040 | DIP-16 | 12-stage binary counter | 251686CX SN74HC4040N | .26 | .21 | .18 | 45920CX 74HC4040N | | .24 | .19 | .17 |
| 74HC4046 | SOIC-16 | Phase lock loop | 252460CX CD74HC4046AM | .45 | .36 | .28 | 243900CX 74HC4046M | | .41 | .33 | .26 |
| 74HC4046 | DIP-16 | Phase lock loop | 251694CX CD74HC4046AE | .39 | .34 | .285 | 45938CX 74HC4046N | | .35 | .30 | .22 |
| 74HC4049 | SOIC-16 | HEX inverting buffers | 252478CX CD74HC4049M | .36 | .33 | .30 | 243918CX 74HC4049M | | .32 | .29 | .27 |
| 74HC4049 | DIP-16 | Hi speed HEX inverting buffers | 272049CX CD74HC4049E | .40 | .38 | .29 | 272057CX 74HC4049N | | .36 | .34 | .27 |
| 74HC4050 | SOIC-16 | HEX non-inverting buffers | 252486CX CD74HC4050M | .36 | .33 | .285 | 243926CX 74HC4050M | | .32 | .29 | .25 |
| 74HC4050 | DIP-16 | Hi speed HEX non-inverting buffers | 272065CX CD74HC4050E | .41 | .36 | .28 | 272073CX 74HC4050N | | .38 | .33 | .25 |
| 74HC4051 | SOIC-16 | Single 8-channel multiplexer/demultiplexer | 252380CX CD74HC4051M | .39 | .36 | .285 | 243862CX 74HC4051M | | .35 | .32 | .26 |
| 74HC4051 | DIP-16 | Single 8-channel multiplexer/demultiplexer | 251707CX CD74HC4051E | .34 | .26 | .245 | 88102CX 74HC4051N | | .30 | .26 | .19 |
| 74HC4052 | SOIC-16 | Hi speed analog multiplexer/demultiplexer | 252494CX CD74HC4052M | .40 | .34 | .255 | 245059CX 74HC4052M | | .36 | .30 | .23 |
| 74HC4052 | DIP-16 | Hi speed analog multiplexer/demultiplexer | 272081CX CD74HC4052E | .43 | .33 | .25 | 272090CX 74HC4052N | | .39 | .30 | .23 |
| 74HC4053 | SOIC-16 | Hi speed analog multiplexer/demultiplexer | 252515CX CD74HC4053M | .38 | .35 | .28 | 245067CX 74HC4053M | | .35 | .32 | .26 |
| 74HC4053 | DIP-16 | Hi speed analog multiplexer/demultiplexer | 272111CX CD74HC4053E | .35 | .31 | .25 | 272129CX 74HC4053N | | .32 | .31 | .25 |
| 74HC4060 | SOIC-16 | 14-stage binary counter | 252419CX SN74HC4060D | .43 | .33 | .25 | 243871CX 74HC4060M | | .40 | .30 | .23 |
| 74HC4060 | DIP-16 | 14-stage binary counter | 251803CX SN74HC4060N | .43 | .33 | .25 | 45962CX 74HC4060N | | .40 | .30 | .23 |
| 74HC4066 | SOIC-14 | Quad analog switch | 252435CX SN74HC4066D | .33 | .30 | .28 | 243889CX 74HC4066M | | .30 | .28 | .26 |
| 74HC4066 | DIP-14 | Quad analog switch | 251811CX SN74HC4066N | .40 | .35 | .32 | 45971CX 74HC4066N | | .35 | .32 | .27 |
| 74HC4316 | SOIC-16 | Hi speed quad analog switches w/ level translation | 252566CX CD74HC4316M | .45 | .41 | .30 | 245112CX 74HC4316M | | .40 | .35 | .27 |
| 74HC4316 | DIP-16 | Hi speed quad analog switches w/ level translation | 272145CX CD74HC4316E | .41 | .36 | .31 | 272153CX 74HC4316N | | .38 | .32 | .27 |
| 74HC4514 | DIP-24 | 4/16-line decoder with latch (.3"W) | 251820CX CD74HC4514E | 1.69 | 1.54 | 1.40 | 46009CX 74HC4514N | | .81 | .79 | .68 |
| 74HC4538 | SOIC-16 | Dual retrigger. mono. multivibrator | 252443CX CD74HC4538M | .46 | .42 | .39 | 243897CX 74HC4538M | | .42 | .39 | .36 |
| 74HC4538 | DIP-16 | Dual retrigger. mono. multivibrator | 251838CX CD74HC4538E | .37 | .34 | .30 | 46017CX 74HC4538N | | .33 | .28 | .21 |

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| Family | Package | TI | Jameco | Fairchild | On Semi | ST Micro | Philips | Toshiba |
|--------|---------|------------------|----------------|------------------|---------------|----------------|-------------|--------------------|
| HC(T) | DIP | SN74HC(T)XXXN | 74HC(T)XXXN | MM74HC(T)XXXN | MC74HC(T)XXXN | M74HC(T)XXXBIR | 74HC(T)XXXN | TC74HC(T)XXXAP |
| | DIP | CD74HC(T)XXE | 74HC(T)XXXN | MM74HC(T)XXXN | MC74HC(T)XXXN | M74HC(T)XXXBIR | 74HC(T)XXXN | TC74HC(T)XXXAP |
| | SOIC | SN74HC(T)XXXD/DW | 74HC(T)XXXM/MM | MM74HC(T)XXXM/MM | MC74HC(T)XXXD | M74HC(T)XXXMIR | 74HC(T)XXXD | TC74HC(T)XXXAF/AFW |
| | SOIC | CD74HC(T)XXXM | 74HC(T)XXXM/MM | MM74HC(T)XXXM/MM | MC74HC(T)XXXD | M74HC(T)XXXMIR | 74HC(T)XXXD | TC74HC(T)XXXAF/AFW |

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|----------|---------|--|----------|------------------|-----------|--------|--------|----------|------------|-----------|--------|--------|
| 74HCT00 | SOIC-14 | Quad 2-input NAND gate | 246393CX | SN74HCT00D |* | \$.16 | \$.15 | 246027CX | 74HCT00M |* | \$.15 | \$.14 |
| 74HCT00 | DIP-14 | Quad 2-input NAND gate | 246406CX | SN74HCT00N |26 | .23 | .20 | 448711CX | 74HCT00N |24 | .20 | .15 |
| 74HCT02 | SOIC-14 | Quad 2-input positive NOR gate | 268373CX | SN74HCT02D |31 | .28 | .25 | 268390CX | 74HCT02M |28 | .24 | .20 |
| 74HCT02 | DIP-14 | Quad 2-input NOR gate | 246414CX | SN74HCT02N |35 | .29 | .20 | 448808CX | 74HCT02N |32 | .27 | .18 |
| 74HCT04 | SOIC-14 | Hex inverter | 246369CX | SN74HCT04D |20 | .16 | .14 | 246035CX | 74HCT04M |* | .16 | .13 |
| 74HCT04 | DIP-14 | Hex inverter | 246422CX | SN74HCT04N |25 | .22 | .20 | 448988CX | 74HCT04N |23 | .20 | .15 |
| 74HCT08 | SOIC-14 | Quad 2-input AND gate | 246078CX | SN74HCT08D |* | .16 | .14 | 246043CX | 74HCT08M |* | .15 | .14 |
| 74HCT08 | DIP-14 | Quad 2-input AND gate | 246431CX | SN74HCT08N |20 | .16 | .14 | 449011CX | 74HCT08N |* | .15 | .11 |
| 74HCT14 | SOIC-14 | Hex inverter Schmitt trigger | 246377CX | SN74HCT14D |21 | .18 | .16 | 246060CX | 74HCT14M |* | .17 | .16 |
| 74HCT14 | DIP-14 | Hex inverter Schmitt trigger | 246449CX | SN74HCT14N |22 | .20 | .175 | 449353CX | 74HCT14N |20 | .18 | .15 |
| 74HCT32 | SOIC-14 | Quad 2-input OR gate | 246318CX | SN74HCT32D |* | .14 | .13 | 246123CX | 74HCT32M |* | .13 | .12 |
| 74HCT32 | DIP-14 | Quad 2-input OR gate | 246457CX | SN74HCT32N |23 | .20 | .19 | 450577CX | 74HCT32N |21 | .18 | .17 |
| 74HCT74 | SOIC-14 | Dual D flip-flop | 246262CX | SN74HCT74D |* | .17 | .16 | 246254CX | 74HCT74M |* | .16 | .15 |
| 74HCT74 | DIP-14 | Dual D flip-flop | 246465CX | SN74HCT74N |27 | .23 | .20 | 451377CX | 74HCT74N |25 | .21 | .16 |
| 74HCT86 | SOIC-14 | Quad 2-input exclusive OR gate | 268411CX | CD74HCT86M |36 | .32 | .22 | 268429CX | 74HCT86M |33 | .29 | .20 |
| 74HCT86 | DIP-14 | Quad 2-input exclusive OR gate | 246473CX | CD74HCT86E |24 | .19 | .13 | 451455CX | 74HCT86N |22 | .18 | .12 |
| 74HCT123 | SOIC-16 | Dual retrigg. monostable multivibrator w/ reset | 271951CX | CD74HCT123M |32 | .27 | .22 | 271960CX | 74HCT123M |29 | .26 | .23 |
| 74HCT123 | DIP-16 | Dual retrigg. monostable multivibrator w/ reset | 246481CX | CD74HCT123E |26 | .24 | .20 | 880499CX | 74HCT123N |24 | .22 | .18 |
| 74HCT125 | SOIC-14 | Quad 3-state bus buffer | 271986CX | SN74HCT125D |36 | .33 | .25 | 271994CX | 74HCT125M |33 | .30 | .23 |
| 74HCT125 | DIP-14 | Quad 3-state bus buffer | 246490CX | SN74HCT125N |24 | .21 | .17 | 243192CX | 74HCT125N |22 | .20 | .16 |
| 74HCT138 | SOIC-16 | 3 to 8 decoder/demultiplexer | 246385CX | SN74HCT138D |29 | .25 | .21 | 246051CX | 74HCT138M |27 | .24 | .19 |
| 74HCT138 | DIP-16 | 3 to 8 decoder/demultiplexer | 246502CX | SN74HCT138N |36 | .29 | .22 | 449277CX | 74HCT138N |33 | .27 | .20 |
| 74HCT139 | SOIC-16 | 2 to 4 decoder/demultiplexer | 246289CX | SN74HCT139D |27 | .245 | .23 | 246271CX | 74HCT139M |25 | .23 | .19 |
| 74HCT139 | DIP-16 | 2 to 4 decoder/demultiplexer | 246511CX | SN74HCT139N |33 | .29 | .25 | 637733CX | 74HCT139N |30 | .27 | .23 |
| 74HCT154 | DIP-24 | 4 to 16 decoder/demultiplexer | 246521CX | CD74HCT154E |1.19 | .99 | .88 | 880577CX | 74HCT154N |1.06 | .85 | .78 |
| 74HCT157 | SOIC-16 | Quad 2 to 1 data selectors/multiplexers | 246300CX | SN74HCT157D |43 | .33 | .25 | 246297CX | 74HCT157M |40 | .30 | .23 |
| 74HCT157 | DIP-16 | Quad 2 to 1 data selectors/multiplexers | 272145CX | SN74HCT157N |41 | .36 | .31 | 272196CX | 74HCT157N |31 | .26 | .20 |
| 74HCT164 | SOIC-14 | 8-bit serial in/parallel out shift register | 253016CX | CD74HCT164M |34 | .31 | .285 | 253024CX | 74HCT164M |30 | .28 | .25 |
| 74HCT164 | DIP-14 | 8-bit serial in/parallel out shift register | 250819CX | CD74HCT164E |39 | .33 | .28 | 449788CX | 74HCT164N |36 | .30 | .26 |
| 74HCT240 | SOIC-20 | Octal inverting line driver w/ 3-st. outputs | 246351CX | SN74HCT240DW |34 | .31 | .25 | 246086CX | 74HCT240WM |31 | .29 | .27 |
| 74HCT240 | DIP-20 | Octal inverting line driver w/ 3-st. outputs | 250827CX | SN74HCT240N |35 | .32 | .25 | 45014CX | 74HCT240N |32 | .29 | .23 |
| 74HCT244 | SOIC-20 | Octal driver tri-state | 246342CX | SN74HCT244DW |41 | .33 | .25 | 246094CX | 74HCT244WM |38 | .30 | .23 |
| 74HCT244 | DIP-20 | Octal driver tri-state | 250835CX | SN74HCT244N |33 | .31 | .25 | 45022CX | 74HCT244N |30 | .29 | .23 |
| 74HCT245 | SOIC-20 | Octal transceiver w/ 3-state outputs | 246334CX | SN74HCT245DW |34 | .31 | .25 | 246107CX | 74HCT245WM |31 | .29 | .25 |
| 74HCT245 | DIP-20 | Octal transceiver w/ 3-state outputs | 250843CX | SN74HCT245N |41 | .33 | .25 | 450311CX | 74HCT245N |38 | .30 | .23 |
| 74HCT273 | SOIC-20 | Octal D-type flip-flop with clear | 246326CX | SN74HCT273DW |31 | .28 | .25 | 246115CX | 74HCT273WM |29 | .26 | .23 |
| 74HCT273 | DIP-20 | Octal D-type flip-flop with clear | 250851CX | SN74HCT273N |41 | .33 | .25 | 450499CX | 74HCT273N |38 | .30 | .23 |
| 74HCT373 | SOIC-20 | Octal D-type flip-flop w/ 3-state outputs | 246140CX | SN74HCT373DW |34 | .31 | .29 | 246131CX | 74HCT373WM |31 | .29 | .27 |
| 74HCT373 | DIP-20 | Octal D-type flip-flop w/ 3-state outputs | 250878CX | SN74HCT373N |36 | .29 | .22 | 450655CX | 74HCT373N |33 | .27 | .20 |
| 74HCT374 | SOIC-20 | Octal D-type flip-flop edge-trig. w/ 3-st. outputs | 246166CX | SN74HCT374DW |34 | .31 | .25 | 246158CX | 74HCT374WM |31 | .29 | .23 |
| 74HCT374 | DIP-20 | Octal D-type flip-flop edge-trig. w/ 3-st. outputs | 250894CX | SN74HCT374N |37 | .33 | .25 | 450733CX | 74HCT374N |34 | .30 | .23 |
| 74HCT393 | DIP-14 | Dual 4-stage binary counter | 250907CX | CD74HCT393E |41 | .33 | .25 | 243205CX | 74HCT393N |38 | .30 | .23 |
| 74HCT540 | SOIC-20 | Octal 3-state buffer | 246182CX | SN74HCT540DW |41 | .33 | .25 | 246174CX | 74HCT540WM |38 | .30 | .23 |
| 74HCT540 | DIP-20 | Octal 3-state buffer | 250915CX | SN74HCT540N |41 | .33 | .25 | 109778CX | 74HCT540N |38 | .30 | .23 |
| 74HCT541 | SOIC-20 | Octal buffer/line driver w/ 3-state outputs | 246203CX | SN74HCT541DW |41 | .33 | .25 | 246191CX | 74HCT541WM |38 | .30 | .23 |
| 74HCT541 | DIP-20 | Octal buffer/line driver w/ 3-state outputs | 250923CX | SN74HCT541N |41 | .33 | .25 | 99303CX | 74HCT541N |38 | .30 | .23 |
| 74HCT573 | SOIC-20 | Octal D-type latched flip-flop w/ 3-st. outputs | 246211CX | SN74HCT573DW |41 | .33 | .25 | 246220CX | 74HCT573WM |38 | .30 | .23 |
| 74HCT573 | DIP-20 | Octal D-type latched flip-flop w/ 3-st. outputs | 250931CX | SN74HCT573N |38 | .33 | .25 | 450909CX | 74HCT573N |35 | .30 | .23 |
| 74HCT574 | SOIC-20 | Octal D-type flip-flop edge-trig. w/ 3-st. outputs | 246246CX | SN74HCT574DW |38 | .33 | .25 | 246238CX | 74HCT574WM |34 | .32 | .23 |
| 74HCT574 | DIP-20 | Octal D-type flip-flop edge-trig. w/ 3-st. outputs | 250940CX | SN74HCT574N |41 | .33 | .25 | 45102CX | 74HCT574N |38 | .30 | .23 |
| 74HCT688 | DIP-20 | 8-bit magnitude comparator | 250958CX | CD74HCT688E |60 | .48 | .43 | 45129CX | 74HCT688N |53 | .43 | .38 |

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| 46252CX | 74LS00N** | DIP-14 | Quad 2-input NAND gate | .29 | .27 | .24 |
| 198361CX | 74LS00M | SOIC-14 | Quad 2-input NAND gate | .25 | .22 | .19 |
| 46287CX | 74LS02N** | DIP-14 | Quad 2-input NOR gate | .29 | .25 | .21 |
| 198379CX | 74LS02M | SOIC-14 | Quad 2-input NOR gate | .27 | .23 | .17 |
| 46308CX | 74LS03N | DIP-14 | Quad 2-input NAND gate (O.C.) | .34 | .25 | .19 |
| 46316CX | 74LS04N** | DIP-14 | Hex inverter | .29 | .26 | .23 |
| 198387CX | 74LS04M | SOIC-14 | Hex inverter | .27 | .23 | .17 |
| 46341CX | 74LS05N* | DIP-14 | Hex inverter (O.C.) | .34 | .28 | .21 |
| 198395CX | 74LS05M | SOIC-14 | Hex inverter (O.C.) | .35 | .24 | .19 |
| 46359CX | 74LS06N | DIP-14 | Hex inverter buffer/driver (O.C.) | .57 | .53 | .44 |
| 46367CX | 74LS07N | DIP-14 | Hex buffer/driver (O.C. hi-voltage) | .84 | .79 | .74 |
| 198408CX | 74LS07M | SOIC-14 | Hex buffer/driver (O.C. hi-voltage) | .64 | .54 | .41 |
| 46375CX | 74LS08N** | DIP-14 | Quad 2-input AND gate | .36 | .31 | .22 |
| 198416CX | 74LS08M | SOIC-14 | Quad 2-input AND gate | .41 | .33 | .25 |
| 46391CX | 74LS09N | DIP-14 | Quad 2-input AND gate (O.C.) | .29 | .22 | .15 |
| 46404CX | 74LS10N* | DIP-14 | Triple 3-input NAND gate | .24 | .16 | .12 |
| 198424CX | 74LS10M | SOIC-14 | Triple 3-input NAND gate | .36 | .24 | .19 |
| 46439CX | 74LS11N* | DIP-14 | Triple 3-input AND gate | .36 | .27 | .18 |
| 198432CX | 74LS11M | SOIC-14 | Triple 3-input AND gate | .41 | .33 | .25 |
| 46640CX | 74LS14N* | DIP-14 | Hex inverter Schmitt trigger | .29 | .25 | .18 |
| 198441CX | 74LS14M | SOIC-14 | Hex inverter Schmitt trigger | .37 | .24 | .19 |
| 47095CX | 74LS20N* | DIP-14 | Dual 4-input NAND gate | .25 | .19 | .17 |
| 198459CX | 74LS20M | SOIC-14 | Dual 4-input NAND gate | .41 | .35 | .26 |
| 47108CX | 74LS21N | DIP-14 | Dual 4-input AND gate | .22 | .19 | .16 |
| 47378CX | 74LS27N | DIP-14 | Triple 3-input NOR gate | .23 | .20 | .15 |
| 47458CX | 74LS30N* | DIP-14 | 8-input NAND gate | .33 | .29 | .21 |
| 198467CX | 74LS30M | SOIC-14 | 8-input NAND gate | .41 | .35 | .26 |
| 47466CX | 74LS32N** | DIP-14 | Quad 2-input OR gate | .29 | .26 | .23 |
| 198475CX | 74LS32M | SOIC-14 | Quad 2-input OR gate | .41 | .30 | .24 |
| 47597CX | 74LS37N | DIP-14 | Quad 2-input NAND gate buffer | .54 | .46 | .34 |
| 47693CX | 74LS38N | DIP-14 | Quad 2-input NAND gate buffer (O.C.) | .29 | .25 | .18 |
| 47773CX | 74LS42N | DIP-16 | BCD-to-decimal decoder/driver | .69 | .59 | .49 |
| 47790CX | 74LS47N* | DIP-16 | BCD to 7-seg. decoder/driver (O.C.) | .72 | .52 | .45 |
| 47811CX | 74LS48N | DIP-16 | BCD to 7-seg. decoder/driver | 4.99 | 4.24 | 3.18 |
| 47992CX | 74LS73N* | DIP-14 | Dual JK flip-flop with clear | .32 | .27 | .19 |
| 48004CX | 74LS74N** | DIP-14 | Dual D flip-flop | .29 | .25 | .22 |
| 198491CX | 74LS74M | SOIC-14 | Dual D flip-flop | .34 | .29 | .22 |
| 48021CX | 74LS75N* | DIP-16 | 4-bit bi-stable latch | .85 | .73 | .54 |
| 198504CX | 74LS75M | SOIC-16 | 4-bit bi-stable latch | .56 | .48 | .36 |
| 48039CX | 74LS76N | DIP-16 | Dual JK flip-flop with preset and clear | .69 | .62 | .55 |
| 48063CX | 74LS83N | DIP-16 | 4-bit binary full adder | .99 | .89 | .79 |
| 48071CX | 74LS85N* | DIP-16 | 4-bit magnitude comparator | .43 | .33 | .29 |
| 198512CX | 74LS85M | SOIC-16 | 4-bit magnitude comparator | .56 | .48 | .36 |
| 48098CX | 74LS86N* | DIP-14 | Quad EXCLUSIVE-OR gate | .35 | .30 | .22 |
| 198521CX | 74LS86M | SOIC-14 | Quad EXCLUSIVE-OR gate | .41 | .33 | .25 |
| 48119CX | 74LS90N* | DIP-14 | Decade counter | .49 | .45 | .39 |
| 198539CX | 74LS90M | SOIC-14 | Decade counter | .70 | .49 | .36 |
| 48143CX | 74LS92N | DIP-14 | Divide-by-12 counter | .56 | .49 | .44 |
| 48151CX | 74LS93N* | DIP-14 | 4-bit binary counter | .89 | .79 | .70 |
| 198547CX | 74LS93M | SOIC-14 | 4-bit binary counter | .99 | .89 | .75 |
| 48178CX | 74LS95N | DIP-14 | 4-bit parallel-access shift register | .89 | .79 | .69 |
| 46412CX | 74LS107N | DIP-14 | Dual JK flip-flop with clear | .49 | .36 | .25 |
| 46421CX | 74LS109N | DIP-16 | Dual JK pos. edge-trig. flip-flop | .36 | .28 | .19 |
| 46447CX | 74LS112N | DIP-16 | Dual JK neg. edge-trig. flip-flop | .41 | .35 | .26 |
| 46471CX | 74LS122N | DIP-14 | Retrig. mono. multivibrator comm. CLK | .41 | .30 | .27 |
| 46480CX | 74LS123N* | DIP-16 | Dual mono. multivibrator with clear | .39 | .30 | .23 |
| 198555CX | 74LS123M | SOIC-16 | Dual mono. multivibrator with clear | .46 | .35 | .27 |
| 46501CX | 74LS125N* | DIP-16 | Quad bus buffer neg. enable tri-state | .46 | .35 | .27 |
| 243168CX | 74LS125AM | SOIC-14 | Quad 3-state buffer | .46 | .35 | .27 |
| 46527CX | 74LS126N | DIP-14 | Quad bus buffer tri-state | .32 | .30 | .22 |
| 46551CX | 74LS132N | DIP-14 | Quad 2-input NAND Schmitt trigger | .46 | .35 | .24 |
| 46586CX | 74LS136N | DIP-14 | Quad EXCLUSIVE-OR gate (O.C.) | .53 | .40 | .30 |
| 46607CX | 74LS138N* | DIP-16 | 3 to 8 decoder/demultiplexer | .38 | .35 | .26 |
| 198563CX | 74LS138M | SOIC-16 | 3 to 8 decoder/demultiplexer | .56 | .50 | .41 |
| 46623CX | 74LS139N* | DIP-16 | 2 to 4 decoder/demultiplexer | .34 | .29 | .22 |

*10 pcs. in 74LS series IC cabinet kit, pg 227

**20 pcs. in 74LS series IC cabinet kit, pg 227

74LS Series (Continued)



| * Prepackaged: order in increments of 10 or 100 | | | | | | |
|---|------------|---------|---|--------|-------|-------|
| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
| 46666CX | 74LS145N | DIP-16 | BCD-to-decimal decoder/driver | \$.49 | \$.45 | \$.39 |
| 46682CX | 74LS148N | DIP-16 | 8 to 3 priority encoder | .79 | .68 | .55 |
| 46703CX | 74LS151N* | DIP-16 | 8-input multiplexer | .39 | .35 | .31 |
| 198571CX | 74LS151M | SOIC-16 | 8-input multiplexer | .31 | .26 | .20 |
| 46720CX | 74LS153N | DIP-16 | Dual 4-to-1 selector/multiplexer | .36 | .31 | .23 |
| 46738CX | 74LS154N | DIP-24 | 4 to 16 line decoder/demultiplexer | 4.45 | 3.99 | 3.49 |
| 46754CX | 74LS155N* | DIP-16 | Dual 2/4 demultiplexer | .49 | .41 | .31 |
| 46762CX | 74LS156N | DIP-16 | Dual 2/4 demultiplexer (O.C.) | .24 | .20 | .15 |
| 46771CX | 74LS157N* | DIP-16 | Quad 2/1 data selector | .36 | .31 | .23 |
| 198580CX | 74LS157M | SOIC-16 | Quad 2/1 data selector | .30 | .26 | .19 |
| 46800CX | 74LS160N | DIP-16 | Decade counter with asynch. clear | 1.95 | 1.85 | 1.75 |
| 46818CX | 74LS161N | DIP-16 | Synch 4-bit counter | .44 | .38 | .28 |
| 46842CX | 74LS163N | DIP-16 | Fully synch. 4-bit counter | .44 | .36 | .28 |
| 46851CX | 74LS164N | DIP-14 | 8-bit serial shift register | .37 | .31 | .24 |
| 46877CX | 74LS165N | DIP-16 | 8-bit serial shift register, parallel load | .49 | .42 | .31 |
| 46885CX | 74LS166N | DIP-16 | 8-bit shift register, parallel load | .38 | .36 | .25 |
| 46906CX | 74LS169N | DIP-16 | Synch. binary up/down counter | .61 | .47 | .35 |
| 46922CX | 74LS173N | DIP-16 | 4-bit D-type reg. tri-state | .99 | .95 | .89 |
| 46931CX | 74LS174N* | DIP-16 | Hex D flip-flop with clear | .34 | .29 | .27 |
| 46957CX | 74LS175N* | DIP-16 | Quad D flip-flop with clear | .40 | .31 | .23 |
| 46973CX | 74LS181N | DIP-24 | Arithmetic logic unit/function generator | 1.56 | 1.31 | .89 |
| 46990CX | 74LS190N | DIP-16 | Synchronous up/down counter | 1.71 | 1.54 | 1.37 |
| 47001CX | 74LS191N | DIP-16 | Up/down binary counter | .45 | .38 | .29 |
| 47010CX | 74LS192N | DIP-16 | Decade up/down counter with clear | 3.95 | 3.59 | 3.25 |
| 47036CX | 74LS193N* | DIP-16 | Binary up/down counter with clear | .59 | .49 | .45 |
| 198598CX | 74LS193M | SOIC-16 | Binary up/down counter with clear | .70 | .65 | .56 |
| 47052CX | 74LS194N | DIP-16 | 4-bit bi-directional shift register | .59 | .49 | .45 |
| 47061CX | 74LS195N | DIP-16 | 4-bit parallel-access shift register | .49 | .40 | .28 |
| 47124CX | 74LS221N | DIP-16 | Dual mono. multivibrator Schmitt trigger | .49 | .44 | .36 |
| 243176CX | 74LS221M | SOIC-16 | Dual monostable multivibrator | .72 | .55 | .42 |
| 47141CX | 74LS240N* | DIP-20 | Octal invert. line driver tri-state | .41 | .31 | .24 |
| 198619CX | 74LS240M | SOIC-20 | Octal invert. line driver tri-state | .53 | .40 | .30 |
| 47167CX | 74LS241N | DIP-20 | Octal bus/line driver tri-state | .27 | .25 | .22 |
| 47183CX | 74LS244N* | DIP-20 | Octal driver tri-state | .44 | .37 | .28 |
| 198627CX | 74LS244M | SOIC-20 | Octal driver tri-state | .45 | .39 | .33 |
| 47212CX | 74LS245N* | DIP-20 | Octal bus transceiver tri-state | .45 | .39 | .35 |
| 198635CX | 74LS245M | SOIC-20 | Octal bus transceiver tri-state | .34 | .31 | .26 |
| 47247CX | 74LS247N | DIP-16 | BCD to 7-segment decoder/driver (O.C.) | .94 | .80 | .62 |
| 47271CX | 74LS251N | DIP-16 | 8-channel multiplexer tri-state | .45 | .35 | .29 |
| 47298CX | 74LS257N | DIP-16 | Quad 2-input multiplexer tri-state | .26 | .24 | .21 |
| 47327CX | 74LS259N | DIP-16 | 8-bit addressable latch | .49 | .41 | .31 |
| 47360CX | 74LS266N | DIP-14 | Quad EXCLUSIVE-NOR gate (O.C.) | .49 | .36 | .31 |
| 47386CX | 74LS273N* | DIP-20 | Octal D-type flip-flop with clear | .39 | .31 | .24 |
| 198643CX | 74LS273M | SOIC-20 | Octal D-type flip-flop with clear | .56 | .48 | .36 |
| 47407CX | 74LS279N | DIP-16 | Quad set-reset latches | .49 | .41 | .31 |
| 47423CX | 74LS283N | DIP-16 | 4-bit binary full add with fast carry | .45 | .34 | .24 |
| 47440CX | 74LS299N | DIP-20 | 8-bit universal shift/storage register | .82 | .70 | .51 |
| 47546CX | 74LS365N | DIP-16 | Hex buffer with logical OR tri-state | .69 | .62 | .47 |
| 47562CX | 74LS367N | DIP-16 | Hex buffer tri-state | .45 | .38 | .28 |
| 47600CX | 74LS373N* | DIP-20 | Octal D flip-flop tri-state | .45 | .39 | .35 |
| 198651CX | 74LS373M | SOIC-20 | Octal D flip-flop tri-state | .51 | .38 | .30 |
| 47634CX | 74LS374N* | DIP-20 | Octal D F/F edge-trig tri-state | .45 | .39 | .34 |
| 198660CX | 74LS374M | SOIC-20 | Octal D F/F edge-trig tri-state | .41 | .31 | .24 |
| 47669CX | 74LS377N | DIP-20 | Octal D register common enable | * | .13 | .096 |
| 47722CX | 74LS390N | DIP-16 | Dual 4-bit decade counter | .69 | .59 | .44 |
| 47731CX | 74LS393N | DIP-14 | Dual 4-bit binary counter | .45 | .39 | .30 |
| 243184CX | 74LS393M | SOIC-16 | Dual 4-bit binary counter | \$.04 | .79 | .60 |
| 47861CX | 74LS540N | DIP-20 | Octal invert. buffer/line driver tri-state | .86 | .74 | .55 |
| 47870CX | 74LS541N | DIP-20 | Octal buffer/line driver tri-state | .69 | .59 | .49 |
| 64418CX | 74LS573N | DIP-20 | Octal D-type F/F latch tri-state | 2.06 | 1.81 | 1.23 |
| 64426CX | 74LS574N | DIP-20 | Octal D-type F/F edge-trig. tri-state | 2.11 | 1.81 | 1.36 |
| 47909CX | 74LS590N | DIP-16 | 8-bit binary counter w/o reg. tri-state | 4.55 | 4.23 | 3.55 |
| 103974CX | 74LS595N | DIP-16 | 8-bit serial-to-parallel shift reg. tri-state | 4.49 | 3.65 | 3.15 |
| 47950CX | 74LS645N | DIP-20 | Octal bus transceiver tri-state | \$1.09 | 1.15 | .96 |
| 47984CX | 74LS688N | DIP-20 | 8-bit magnitude comparator | \$1.19 | .80 | .77 |

*10 pcs. in 74LS series IC cabinet kit, pg 227

Call for pricing on quantities over 100 – we carry major manufacturers.

We will special order any IC – \$100 minimum.

74ALS Series



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|--|------|------|-----|
| 245294CX | 74ALS00AN | DIP-14 | Quad 2-input NAND gate | .38 | .33 | .23 |
| 43959CX | 74ALS02N | DIP-14 | Quad 2-input NOR gate | .30 | .27 | .22 |
| 245307CX | 74ALS04BN | DIP-14 | Hex inverters | .38 | .33 | .23 |
| 245286CX | 74ALS05AN | DIP-14 | Hex inverters w/ open collector outputs | .38 | .33 | .23 |
| 43983CX | 74ALS08N | DIP-14 | Quad 2-input AND gate | .37 | .32 | .23 |
| 245315CX | 74ALS10AN | DIP-14 | Triple 3-input NAND gate | .25 | .24 | .23 |
| 245323CX | 74ALS11AN | DIP-14 | Triple 3-input AND gate | .38 | .33 | .24 |
| 63503CX | 74ALS27N | DIP-14 | Triple 3-input NOR gate | .21 | .19 | .18 |
| 245796CX | 74ALS30AN | DIP-14 | 8-input NAND gate | .40 | .33 | .23 |
| 44134CX | 74ALS32N | DIP-14 | Quad 2-input OR gate | .36 | .32 | .23 |
| 245892CX | 74ALS74AN | DIP-14 | Dual D-pos. edge trigg. flip-flops w/ preset & clear | .39 | .30 | .23 |
| 44214CX | 74ALS86N | DIP-14 | Quad 2-input exclusive OR gate | .40 | .32 | .23 |
| 245754CX | 74ALS151N | DIP-16 | 1 of 8 line data selector/multiplexer | .48 | .37 | .29 |
| 245753CX | 74ALS240AN | DIP-20 | Octal 3-state bus driver | .39 | .30 | .23 |
| 245761CX | 74ALS244AN | DIP-20 | Octal 3-state bus driver | .56 | .47 | .35 |
| 245770CX | 74ALS245AN | DIP-20 | Octal 3-state bus transceiver | .39 | .30 | .23 |
| 44100CX | 74ALS251N | DIP-16 | 3-st. 1 of 8 line data selector/multiplexer | .47 | .42 | .34 |
| 245788CX | 74ALS258N | DIP-20 | 3-st. quad 1 of 2 line data selector/multip. (inverting) | .58 | .49 | .42 |
| 44118CX | 74ALS273N | DIP-20 | Octal D-type edge trigg. flip-flops w/ clear inputs | .79 | .60 | .45 |
| 44142CX | 74ALS373N | DIP-20 | Octal D-type 3-st. transparent latches | .58 | .49 | .36 |
| 245809CX | 74ALS374AN | DIP-20 | Octal 3-st. D-type edge trigg. flip-flops | .39 | .30 | .23 |
| 245817CX | 74ALS520N | DIP-20 | 8-bit comparator | 1.12 | .95 | .76 |
| 245825CX | 74ALS521N | DIP-20 | 8-bit comparator | 1.37 | 1.16 | .82 |
| 245833CX | 74ALS533N | DIP-20 | Octal D-type transparent latches w/ 3-st. outputs | 1.21 | 1.02 | .73 |
| 245841CX | 74ALS540N | DIP-20 | Octal inverting buffers & line driv. w/ 3-st. outputs | .80 | .67 | .54 |
| 245850CX | 74ALS541N | DIP-20 | Octal buffers & line drivers w/ 3-st. outputs | .74 | .62 | .50 |
| 245868CX | 74ALS573BN | DIP-20 | Octal D-type transp. latch w/ 3-st. outputs | .34 | .29 | .23 |
| 245876CX | 74ALS574AN | DIP-20 | Octal D-type edge trigg. flip-flops w/ 3-st. outputs | .34 | .32 | .28 |
| 245884CX | 74ALS645AN | DIP-20 | Octal bus transceivers | 1.00 | .84 | .67 |

74AHC Series



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|--|-----|-----|-----|
| 214092CX | 74AHC00N | DIP-14 | Quad 2-input positive NAND gate | .32 | .27 | .19 |
| 214105CX | 74AHC02N | DIP-14 | Quad 2-input positive NOR gate | .32 | .27 | .19 |
| 214113CX | 74AHC04N | DIP-14 | Hex inverter | .32 | .27 | .19 |
| 214121CX | 74AHC08N | DIP-14 | Quad 2-input positive AND gate | .32 | .27 | .19 |
| 214130CX | 74AHC14N | DIP-14 | Hex inverter with Schmitt trigger input | .32 | .29 | .19 |
| 214148CX | 74AHC32N | DIP-14 | Quad 2-input positive OR gate | .25 | .20 | .17 |
| 214156CX | 74AHC74N | DIP-14 | Dual D-type pos. edge-trigg. flip-flop | .27 | .26 | .19 |
| 214164CX | 74AHC86N | DIP-14 | Quad 2-input exclusive OR gate | .32 | .27 | .19 |
| 243213CX | 74AHC138N | DIP-16 | 3-line to 8-line decoders/demultiplexers | .27 | .24 | .21 |
| 243221CX | 74AHC139N | DIP-16 | Dual 2-line to 4-line decoders/demultiplexers | .27 | .24 | .21 |
| 243230CX | 74AHC157N | DIP-16 | Quad 2-input multiplexer | .62 | .56 | .50 |
| 214172CX | 74AHC240N | DIP-20 | Octal buffer/driver w/ 3-st. outputs | .30 | .28 | .25 |
| 214181CX | 74AHC244N | DIP-20 | Octal buffer/driver w/ 3-st. outputs | .33 | .27 | .20 |
| 214199CX | 74AHC245N | DIP-20 | Octal bus transceiver w/ 3-st. outputs | .33 | .27 | .20 |
| 214201CX | 74AHC373N | DIP-20 | Octal transp. D-type latch w/ 3-st. outputs | .26 | .24 | .19 |
| 214210CX | 74AHC374N | DIP-20 | Octal edge-trig. D-type flip-flop w/ 3-st. outputs | .26 | .24 | .19 |
| 214228CX | 74AHC541N | DIP-20 | Octal buffer/driver w/ 3-state outputs | .33 | .27 | .20 |
| 214236CX | 74AHC574N | DIP-20 | Octal edge-trig. D-type flip-flop w/ 3-st. outputs | .33 | .27 | .20 |

74AHCT Series



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|--|-----|-----|-----|
| 43844CX | 74AHCT00N | DIP-14 | Quad 2-input positive NAND gate | .21 | .15 | .10 |
| 43852CX | 74AHCT02N | DIP-14 | Quad 2-input positive NOR gate | .20 | .17 | .13 |
| 43861CX | 74AHCT04N | DIP-14 | Hex inverter | .20 | .18 | .15 |
| 63431CX | 74AHCT08N | DIP-14 | Quad 2-input positive AND gate | .20 | .18 | .15 |
| 63458CX | 74AHCT14N | DIP-14 | Hex inverter with Schmitt trigger input | .30 | .27 | .19 |
| 43924CX | 74AHCT74AN | DIP-14 | Dual D-type pos. edge-triggered flip-flop | .32 | .27 | .19 |
| 43932CX | 74AHCT86N | DIP-14 | Quad 2-input exclusive OR gate | .21 | .19 | .15 |
| 243248CX | 74AHCT138N | DIP-16 | 3-line to 8-line decoders/demultiplexers | .36 | .32 | .23 |
| 243256CX | 74AHCT139N | DIP-16 | Dual 2-line to 4-line decoders/demultiplexers | .40 | .32 | .23 |
| 214244CX | 74AHCT240N | DIP-20 | Octal buffer/driver w/ 3-state outputs | .26 | .24 | .19 |
| 63466CX | 74AHCT244N | DIP-20 | Octal buffer/driver w/ 3-state outputs | .26 | .24 | .19 |
| 43887CX | 74AHCT245N | DIP-20 | Octal bus transceiver w/ 3-state outputs | .33 | .27 | .20 |
| 43908CX | 74AHCT373N | DIP-20 | Octal transparent D-type latch w/ 3-st. outputs | .26 | .24 | .19 |
| 43916CX | 74AHCT374N | DIP-20 | Octal edge-trig. D-type flip-flop w/ 3-st. outputs | .26 | .24 | .19 |
| 214252CX | 74AHCT574N | DIP-20 | Octal edge-trig. D-type flip-flop w/ 3-st. outputs | .33 | .27 | .20 |

4000 Series



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|---------|---|-----|-----|-----|
| 12562CX | CD4001N** | DIP-14 | Quad 2-input NOR gate | .29 | .24 | .19 |
| 197261CX | CD4001M | SOIC-14 | Quad 2-input NOR gate | .28 | .23 | .18 |
| 12597CX | CD4007N | DIP-14 | Dual comp. pair with inverter | .29 | .25 | .22 |
| 12634CX | CD4011N** | DIP-14 | Quad 2-input NAND gate | .29 | .24 | .19 |
| 197270CX | CD4011M | SOIC-14 | Quad 2-input NAND gate | .23 | .22 | .14 |
| 12677CX | CD4013N** | DIP-14 | Dual D flip-flop with set/reset | .35 | .25 | .22 |
| 197288CX | CD4013M | SOIC-14 | Dual D flip-flop with set/reset | .23 | .21 | .18 |
| 12706CX | CD4015N* | DIP-16 | Dual 4-stage static shift register | .45 | .37 | .28 |
| 12722CX | CD4016N* | DIP-14 | Quad bilateral switch | .28 | .24 | .18 |
| 12749CX | CD4017N* | DIP-16 | Decade counter/divider | .39 | .35 | .31 |
| 197296CX | CD4017M | SOIC-16 | Decade counter/divider | .56 | .45 | .33 |
| 12773CX | CD4018N | DIP-16 | Presettable divide-by-N counter | .30 | .25 | .23 |
| 12802CX | CD4020N* | DIP-16 | 14-stage binary/ripple counter | .49 | .39 | .29 |
| 197309CX | CD4020M | SOIC-16 | 14-stage binary/ripple counter | .62 | .49 | .36 |
| 12829CX | CD4021N | DIP-16 | 8-stage static shift register | .32 | .27 | .18 |
| 54666CX | CD4022N | DIP-16 | Div. by 8-cntr./driver w/ 8-decoded outputs | .32 | .31 | .29 |
| 12845CX | CD4023N* | DIP-14 | Triple 3-input NAND gate | .29 | .25 | .19 |
| 12853CX | CD4024N* | DIP-14 | 7-stage binary counter | .32 | .27 | .18 |
| 12888CX | CD4027N* | DIP-16 | Dual JK master-slave flip-flop | .32 | .27 | .18 |
| 197317CX | CD4027M | SOIC-16 | Dual JK master-slave flip-flop | .39 | .31 | .23 |
| 12909CX | CD4028N | DIP-16 | BCD-to-decimal decoder | .32 | .27 | .18 |
| 12925CX | CD4029N | DIP-16 | Presettable up/down counter | .32 | .27 | .18 |
| 197325CX | CD4029M | SOIC-16 | Presettable up/down counter | .40 | .38 | .36 |
| 12950CX | CD4040N* | DIP-16 | 12-stage binary/ripple counter | .32 | .27 | .18 |
| 197333CX | CD4040M | SOIC-16 | 12-stage binary/ripple counter | .33 | .25 | .22 |
| 12984CX | CD4042N | DIP-16 | Quad clocked D latch | .25 | .21 | .15 |
| 12992CX | CD4043N | DIP-16 | Quad NOR R-S latch tri-state | .31 | .26 | .20 |
| 13004CX | CD4044N | DIP-16 | Quad 3-state NAND R-S latch tri-state | .32 | .29 | .23 |
| 13012CX | CD4046N* | DIP-16 | Micropower phase-locked loop | .43 | .32 | .24 |
| 13039CX | CD4047N | DIP-14 | Monostable/astable multivibrator | .27 | .22 | .20 |
| 13055CX | CD4049N** | DIP-16 | Hex/buffer/converter (inverting) | .29 | .24 | .21 |
| 197341CX | CD4049M | SOIC-16 | Hex/buffer/converter (inverting) | .33 | .28 | .21 |
| 13071CX | CD4050N* | DIP-16 | Hex/buffer/converter (N-inverting) | .22 | .19 | .18 |
| 197350CX | CD4050M | SOIC-16 | Hex/buffer/converter (N-inverting) | .36 | .31 | .23 |
| 13098CX | CD4051N* | DIP-16 | Single 8-channel multi./demultiplexer | .45 | .39 | .35 |
| 197368CX | CD4051M | SOIC-16 | Single 8-channel multi./demultiplexer | .29 | .23 | .21 |
| 13119CX | CD4052N | DIP-16 | Diff. 4-channel multi./demultiplexer | .26 | .24 | .17 |
| 13127CX | CD4053N | DIP-16 | Triple 2-channel multi./demultiplexer | .33 | .27 | .20 |
| 13151CX | CD4060N | DIP-16 | 14-stage ripple-carry binary | .33 | .27 | .20 |
| 13186CX | CD4066N** | DIP-14 | Quad bilateral switch | .35 | .25 | .19 |
| 197376CX | CD4066M | SOIC-14 | Quad bilateral switch | .27 | .20 | .13 |
| 13215CX | CD4067N | DIP-24 | 16-channel analog multi./demultiplexer | .74 | .62 | .50 |
| 13231CX | CD4069N* | DIP-14 | Hex inverter (74C04) | .30 | .24 | .17 |
| 197384CX | CD4069M | SOIC-14 | Hex inverter (74C04) | .29 | .21 | .14 |
| 13258CX | CD4070N* | DIP-14 | Quad EXCLUSIVE-OR gate (74C86) | .28 | .24 | .17 |
| 87847CX | CD4070M | SOIC-14 | Quad EXCLUSIVE-OR gate | .28 | .28 | .28 |
| 13274CX | CD4071N* | DIP-14 | Quad 2-input OR gate | .22 | .19 | .13 |
| 197392CX | CD4071M | SOIC-14 | Quad 2-input OR gate | .30 | .24 | .17 |
| 13354CX | CD4081N* | DIP-14 | Quad 2-input AND gate | .28 | .24 | .17 |
| 197405CX | CD4081M | SOIC-14 | Quad 2-input AND gate | .35 | .30 | .22 |
| 13400CX | CD4093N* | DIP-14 | Quad 2-input NAND Schmitt trigger | .29 | .25 | .19 |
| 197413CX | CD4093M | SOIC-14 | Quad 2-input NAND Schmitt trigger | .25 | .23 | .19 |
| 13426CX | CD4094N | DIP-16 | 8-stage shift-and-store bus register | .37 | .30 | .23 |
| 13434CX | CD4098N | DIP-16 | CMOS/MOS dual mono. multivibrator | .48 | .36 | .27 |
| 13442CX | CD4099N | DIP-16 | 8-bit addressable latch | .30 | .24 | .19 |
| 13469CX | CD4503N | DIP-16 | Tri-state hex buffer (74C367) 80C97 | .28 | .24 | .18 |
| 13485CX | CD4510N | DIP-16 | BCD up/down counter | .69 | .59 | .45 |
| 13493CX | CD4511N* | DIP-16 | BCD to 7-seg. latch/decoder/driver | .69 | .59 | .49 |
| 197421CX | CD4511M | SOIC-16 | BCD to 7-seg. latch/decoder/driver | .44 | .37 | .28 |
| 13514CX | CD4512N | DIP-16 | 8-channel data selector | .59 | .50 | .38 |
| 13522CX | CD4514N | DIP-24 | 4-bit latch/4-16 line decoder | .89 | .79 | .69 |
| 13549CX | CD4516N | DIP-16 | Binary up/down counter | .54 | .49 | .43 |
| 13565CX | CD4518N | DIP-16 | Dual BCD up counter | .49 | .44 | .39 |
| 13581CX | CD4520N | DIP-16 | Dual binary up counter | .45 | .35 | .25 |
| 13590CX | CD4522N | DIP-16 | Program. BCD divide-by-N counter | .89 | .80 | .71 |
| 13602CX | CD4526N | DIP-16 | Divide-by-N counter (binary) | .55 | .47 | .42 |
| 13611CX | CD4528N | DIP-16 | Dual monostable multivibrator | .69 | .49 | .39 |

*10 pcs. in 4000 series IC cabinet kit, pg 227

**20 pcs. in 4000 series IC cabinet kit, pg 227

4000 Series (Continued)

DIP  SOIC 

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|---------|--|--------|--------|--------|
| 13653CX | CD4538N* | DIP-16 | Dual precision monostable multivibrator .. | \$.59 | \$.49 | \$.39 |
| 197430CX | CD4538M | SOIC-16 | Dual precision monostable multivibrator | .57 | .44 | .34 |
| 13688CX | CD4541N | DIP-14 | Oscillator/programmable timer | .39 | .33 | .25 |
| 13696CX | CD4543N* | DIP-16 | BCD to 7-segment decoder (LCD) | .59 | .45 | .29 |
| 13709CX | CD4553N | DIP-16 | 3-digit BCD counter | 2.95 | 2.75 | 2.49 |
| 13768CX | CD4584N* | DIP-14 | Hex Schmitt trigger (74C14) 40106 | .39 | .35 | .29 |
| 197448CX | CD4584M | SOIC-14 | Hex Schmitt trigger (74C14) 40106 | .30 | .28 | .27 |
| 44257CX | CD40106N | DIP-14 | Hex inverter Schmitt trigger (74C14) | .40 | .34 | .23 |

*10 pcs. in 4000 series IC cabinet kit, right

74C Series

DIP 

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|---|--------|--------|----------|
| 44222CX | 74C00N | DIP-14 | Quad 2-input NAND gate | \$.99 | \$.74 | \$ (.51) |
| 44231CX | 74C04N | DIP-14 | Hex inverter (CD4069) | .99 | .74 | (.51) |
| 44257CX | 74C14N | DIP-14 | Hex inverter Schmitt trigger (CD40106) | .40 | .34 | .23 |
| 44441CX | 74C74N | DIP-14 | Dual D flip-flop | 1.69 | 1.44 | 1.08 |
| 44361CX | 74C221N | DIP-16 | Dual monostable multivibrator | 3.69 | 3.19 | 2.50 |
| 13469CX | 74C367N | DIP-16 | Hex buffer tri-state (80C97/CD4503) | .28 | .24 | (.18) |
| 44396CX | 74C373N | DIP-20 | Octal D-type flip-flop with clear tri-state | 3.85 | 3.11 | 2.44 |
| 44409CX | 74C374N | DIP-20 | Octal D-type flip-flop tri-st. (INS82C06N) | 2.15 | 1.85 | 1.69 |
| 44564CX | 74C922N | DIP-18 | 16-key keyboard encoder (INS8245N) | 6.29 | 5.05 | 4.26 |
| 44572CX | 74C923N | DIP-20 | 20-key keyboard encoder (INS8246N) | 5.99 | 4.95 | 4.09 |
| 44581CX | 74C925N | DIP-16 | 4-digit CTR w/ MUX D segment driver | 9.69 | 8.95 | 8.15 |
| 44599CX | 74C926N | DIP-18 | 4-digit CTR w/ MUX D segment driver | 8.69 | 7.85 | 7.09 |

74S Series

DIP 

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|--|---------|---------|-----------|
| 48531CX | 74S188N | DIP-16 | 256-bit (32 x 8) PROM O.C. (27S18) | \$ 4.35 | \$ 3.70 | \$ (2.77) |
| 48557CX | 74S189N | DIP-16 | 64-bit (16 x 4) RAM tri-state (27S03) | 3.99 | 3.90 | 3.86 |
| 48696CX | 74S287N | DIP-16 | 1k-bit (256 x 4) PROM tri-state (TBP24S10) .. | 6.95 | 6.25 | 5.65 |
| 48717CX | 74S288N | DIP-16 | 256-bit (32 x 8) PROM tri-st. (TBP18S030N) .. | 7.35 | 6.30 | 5.49 |
| 48805CX | 74S387N | DIP-16 | 1k-bit (256 x 4) PROM O.C. (TBP24SA10N) ... | 3.09 | 3.05 | 3.00 |
| 52513CX | 74S428N | DIP-28 | System contr./bus driver (8228) | 3.69 | 3.19 | 2.36 |
| 48864CX | 74S472N | DIP-20 | 4k-bit (512 x 8) PROM tri-st. (TBP28S42N) .. | 12.95 | 11.65 | 10.49 |
| 48910CX | 74S571N | DIP-16 | 2k-bit (512 x 4) PROM tri-st. (AM27S13) | 5.69 | 5.49 | 5.29 |
| 48928CX | 74S573N | DIP-18 | 4k-bit (1024 x 4) PROM tri-st. (53S441J) | 3.55 | 3.15 | 2.83 |

9000 Series

DIP 

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|------------------------------|---------|---------|---------|
| 53663CX | 9368 | DIP-16 | 7 segment driver/latch | \$ 4.49 | \$ 3.95 | \$ 3.55 |
| 10567CX | AM9513APC | DIP-40 | System timing counter | 39.95 | 35.95 | 31.85 |



Dallas Semiconductor

DIP  SOIC 

| Part No. | Product No. | Pkg. | Description | 1 | 10 | 100 |
|----------|--------------|--------|--|---------|---------|---------|
| 114198CX | DS1210 | DIP-8 | Nonvolatile controller chip | \$ 4.45 | \$ 3.35 | \$ 2.89 |
| 114219CX | DS1213C | DIP-28 | SmartSocket 64K/256k | 19.99 | 15.55 | 11.35 |
| 133410CX | DS1216C | DIP-28 | Smartwatch/RAM 64K/256k | 31.85 | 27.69 | 19.99 |
| 114331CX | DS1232 | DIP-8 | Micromonitor chip | 1.89 | 1.42 | 1.25 |
| 133444CX | DS1286 | DIP-28 | Watchdog timekeeper (50-Byte RAM) | 23.95 | 18.25 | 12.70 |
| 76646CX | DS1287 | DIP-24 | Real time clock with RAM (MC146818A) .. | 7.25 | 6.15 | (4.59) |
| 176778CX | DS1302 | DIP-8 | Trickle charge time keeping IC | 2.49 | 2.25 | 2.05 |
| 114374CX | DS1387 | DIP-24 | RAMified real time clock 4k x 8 | 8.59 | 7.99 | 7.25 |
| 114382CX | DS1620 | DIP-8 | Digital thermometer and thermostat | 6.29 | 5.05 | 3.49 |
| 245500CX | DS1705ESA | SOIC-8 | 3.3V and 5V micromonitor | 2.05 | 1.56 | 1.09 |
| 282749CX | DS1708ESA | SOIC-8 | 3.3V and 5V micromonitor | 2.05 | 1.56 | 1.21 |
| 133452CX | DS12887 | DIP-24 | Real time clock chip | 8.15 | 6.25 | 3.99 |
| 114403CX | DS80C320-MCG | DIP-40 | High speed micro 25MHz | 12.99 | 10.29 | (6.25) |

4000 Series CMOS IC Kit

SAVE \$27

Includes:

- 20-drawer component cabinet (81701CX),
- 20 clear plastic drawers (85454CX),
- 20 clear dividers (85446CX), pg 108 and
- 30 adhesive labels for drawers to identify parts in kit



10 each: CD4015, CD4016, CD4017, CD4020, CD4023, CD4024, CD4027, CD4040, CD4046, CD4050, CD4051, CD4069, CD4070, CD4071, CD4081, CD4093, CD4511, CD4538, CD4543, CD4584

20 each: CD4001, CD4011, CD4013, CD4049, CD4056

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|----------------------------------|------------|---------|---------|
| 84972CX | 300 pcs. 4000 series CMOS IC kit | 6.1 | \$79.95 | \$71.95 |
| 130405CX | Refill for 84972CX (300 pcs.) | 1.4 | 58.95 | 52.95 |

MPU Supervisory

NEW

SOT-23  SOIC 

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|---------|--|--------|--------|--------|
| 106219CX | MAX690CPA | DIP-8 | Microprocessor watchdog/battery | \$6.15 | \$4.49 | \$3.09 |
| 106227CX | MAX691CPE | DIP-16 | Microprocessor watchdog/battery | 5.75 | 4.89 | 3.67 |
| 243627CX | MAX705CPA | DIP-8 | MPU supervisory circuit | 4.91 | 3.79 | 3.35 |
| 243635CX | MAX705CSA | SOIC-8 | Low cost MPU supervisory circuit | 4.91 | 3.79 | 3.35 |
| 251774CX | MAX707CPA | DIP-8 | Low cost MPU supervisory circuit | 4.45 | 3.40 | 2.20 |
| 251758CX | MAX707CSA | SOIC-8 | Low cost MPU supervisory circuit | 6.38 | 5.74 | 5.17 |
| 266861CX | MAX809T | SOT-23 | 3-pin microprocessor reset circuit | .66 | .57 | .43 |
| 245391CX | MAX810S | SOT-23 | 3-pin microprocessor reset circuit | .91 | .82 | .74 |
| 245497CX | MAX813LCSA | SOIC-8 | Low cost MPU supervisory circuit | 3.15 | 2.41 | 2.25 |
| 106260CX | MAX1232CPA | DIP-8 | Microprocessor monitor | 2.75 | 2.25 | 1.69 |
| 282677CX | DS1233-5 | SOT-23 | 5V econoreset | 1.25 | .91 | .74 |
| 282651CX | DS1233M-5 | TO-92 | Econoreset | 1.25 | .96 | .75 |
| 282685CX | DS1233-10 | TO-92/4 | Econoreset | 1.25 | 1.10 | .99 |

RS-232 Drivers/Receivers

NEW

DIP  SSOP 

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|-------------|---------|---|--------|--------|--------|
| 142535CX | HIN202CP | DIP-16 | +5V RS-232 trans. requires 0.1µF caps .. | \$2.49 | \$2.25 | \$2.05 |
| 244232CX | MAX202CSE | SOIC-16 | +5V RS-232 trans. w/ 0.1µF int. caps | 1.17 | 1.02 | .90 |
| 244241CX | MAX202EPE | DIP-16 | +5V RS-232 transceivers | 1.13 | .99 | .88 |
| 244259CX | MAX202ESE | SOIC-16 | +5V RS-232 trans. w/ 0.1µF ext. caps | 1.13 | .99 | .88 |
| 282790CX | MAX211CAI | SSOP-28 | +5V RS-232 trans. w/ 0.1µF ext. caps | 6.59 | 4.59 | 3.49 |
| 24811CX | MAX232CPE* | DIP-16 | Dual RS-232 receiver/transmitter | 2.19 | 1.75 | 1.45 |
| 106147CX | MAX232CWE | SOIC-16 | +5V pwrd, dual RS-232 trans./receiver | 2.75 | 2.10 | 1.36 |
| 256401CX | MAX232DR | SOIC-16 | Dual EIA-232 driver/receiver | .99 | .89 | .81 |
| 106155CX | MAX232EPE | DIP-16 | +5V dual RS-232 (-40°C to +85°C) | 2.49 | 2.25 | 2.05 |
| 106163CX | MAX233CPG | DIP-20 | +5V multichannel RS-232 driver/receiver .. | 5.75 | 5.18 | 4.66 |
| 106171CX | MAX235CPG | DIP-24 | +5V five RS-232 driver/receiver | 9.95 | 8.45 | (6.35) |
| 106180CX | MAX238CNG | DIP-24 | +5V quad RS-232 driver/receiver | 6.29 | 4.79 | 3.28 |
| 276883CX | MAX323CDWR | SOIC-20 | True 3V-5.5V RS-232 trans.w/ autoshtdwn .. | 1.59 | 1.29 | .97 |
| 193691CX | DS1488D | SOIC-14 | Quad line driver RS-232 (75188D) | .29 | .25 | (.18) |
| 23157CX | DS1488N* | DIP-14 | Quad line driver RS-232 (75188N) | .29 | .25 | .22 |
| 16361CX | DS14C88N | DIP-14 | Quad CMOS line driver RS-232 | .45 | .40 | .35 |
| 193703CX | DS1489D | SOIC-14 | Quad line receiver RS-232 (75189D) | .29 | .25 | .22 |
| 23181CX | DS1489N* | DIP-14 | Quad line receiver RS-232 (75189N) | .29 | .20 | .18 |
| 16379CX | DS14C89N | DIP-14 | Quad CMOS line receiver RS-232 | .75 | .54 | .53 |
| 252128CX | MAX3221CAE | SSOP-16 | RS-232 transceiver with auto shutdown ... | 2.55 | 1.95 | 1.52 |
| 277042CX | MAX3221CEAE | SSOP-16 | True 3V-5.5V RS-232 trans.w/ autoshtdwn .. | 2.95 | 2.11 | 1.47 |
| 276963CX | MAX3222CDBR | SSOP-20 | 3V-5.5V, low pwr RS-232 transceiver | 1.89 | 1.55 | 1.17 |
| 276859CX | MAX3232CDBR | SOIC-16 | 3V-5.5V, true RS-232 transceiver | 1.59 | 1.29 | .97 |
| 276867CX | MAX3232CSE | SOIC-16 | 3V-5.5V, true RS-232 transceiver | 3.19 | 2.44 | 1.58 |
| 276761CX | MAX3243CDWR | SOIC-28 | True 3V-5.5V RS-232 trans.w/ autoshtdwn .. | 1.25 | 1.01 | .77 |
| 276779CX | MAX3243IDWR | SOIC-28 | True 3V-5.5V RS-232 trans.w/ autoshtdwn .. | 1.59 | 1.29 | .98 |
| 276795CX | MAX3238CDBR | SSOP-28 | 3V5.5V, true RS-232 w/ autoshtdwn | 2.15 | 1.74 | 1.37 |
| 276824CX | MAX3238IDBR | SSOP-28 | 3V5.5V, true RS-232 w/ autoshtdwn | 1.95 | 1.56 | 1.18 |
| 235301CX | DS14C232CN | DIP-16 | Low pwr +5V pwrd TIA/EIA 232 dual drv/recvr | 1.25 | 1.12 | .83 |
| 277982CX | SN75185DW | SOIC-20 | Multiple RS-232 drivers/receivers | .59 | .45 | .35 |
| 256081CX | SN75185N | DIP-20 | Multiple RS-232 drivers/receivers | .59 | .45 | .34 |
| 245366CX | SN75C188D | SOIC-14 | Quad low power line driver | .56 | .42 | .32 |
| 23181CX | SN75189N | DIP-14 | Quad line rec. RS-232 (DS1489N) | .29 | .20 | .18 |
| 245374CX | SN75C189D | SOIC-14 | Quad low power line receiver | .79 | .61 | .45 |
| 25099CX | MC145406P | DIP-16 | RS232-C/V.28 drv./rec. (CMOS) (75C1406N) | 1.95 | 1.75 | 1.59 |
| 278205CX | TL145406N | DIP-16 | Triple RS-232 drivers/receivers | 1.19 | .96 | .71 |

*10 pcs. in Linear series IC cabinet kit, pg 23

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RS-422/485 Line Drivers/Receivers



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|-----------------|--------------|---------|--|-------------|-------------|-------------|
| 276605CX | MAX490CSA | SOIC-8 | Low pwr, slew-rate limited RS-485/422 trans. | \$2.55 | \$1.62 | \$1.28 |
| 276576CX | MAX490CPA | DIP-8 | Low pwr, slew-rate limited RS-485/422 trans. | 2.55 | 1.95 | 1.27 |
| 276550CX | MAX491CPD | DIP-14 | Low pwr, slew-rate limited RS-485/422 trans. | 2.55 | 2.05 | 1.85 |
| 244179CX | ADM1485JN | DIP-8 | RS-485 differential bus transceivers | 1.79 | 1.63 | 1.49 |
| 244187CX | ADM1485JR | SOIC-8 | RS-485 differential bus transceivers | 1.29 | 1.15 | 1.06 |
| 235310CX | DS1487N | DIP-8 | Low pwr RS-485 1/4 unit load multipnt rcvr. | 2.06 | 1.96 | 1.87 |
| 244195CX | MAX1487CPA | DIP-8 | RS-485/RS-422 low-power transceivers | 2.45 | 1.89 | 1.29 |
| 244208CX | MAX1487CSA | SOIC-8 | RS-485/RS-422 low-power transceivers | 2.45 | 1.59 | 1.32 |
| 39571CX | 26LS30 | DIP-16 | Dual diff RS422 party line Qd RS423 line driv. | 2.49 | 2.25 | 1.95 |
| 39589CX | 26LS31CN | DIP-16 | Quad diff line driver | .79 | .69 | .62 |
| 243555CX | AM26LV31CD | SOP-16 | RS-422 quad differential line transceivers | .65 | .49 | .38 |
| 39600CX | 26LS32CN | DIP-16 | Quad diff line receiver | .59 | .50 | .39 |
| 242051CX | AM26LV32CD | SOP-16 | RS-422 quad differential line receivers | .86 | .77 | .71 |
| 252427CX | MC3486D | SOIC-16 | Quad EIA-422/423 line rec. w/ 3-st. outputs | .66 | .50 | .38 |
| 25232CX | MC3486P | DIP-16 | Quad EIA-422/423 line rec. w/ 3-st. outputs | .59 | .49 | .45 |
| 252961CX | MC3487D | SOIC-16 | Quad EIA-422 differential line driver | .65 | .50 | .38 |
| 25259CX | MC3487P | DIP-16 | Quad EIA-422 line driver w/ 3-state outputs | .69 | .59 | .45 |
| 144039CX | DS3695N | DIP-8 | Multipoint RS-485/422 trans. w/ 3-st. outputs | 1.85 | 1.38 | 1.02 |
| 235336CX | DS3696N | DIP-8 | Multipoint RS-485/RS-422 trans./repeaters | 1.59 | 1.29 | 1.09 |
| 235344CX | DS36C27BN | DIP-8 | Low pwr multipoint EIA RS-485 transceiver | 2.69 | 2.15 | 2.05 |
| 241980CX | SN75LBC172N | DIP-16 | RS-485 differential line drivers | 3.70 | 3.32 | 3.05 |
| 241998CX | SN75LBC173N | DIP-16 | RS-422/RS-423/RS-485 diff. line rec. | 2.55 | 2.28 | 2.10 |
| 50948CX | 75174N | DIP-16 | Quad diff. RS-422 line driver w/ 3-st. out | .91 | .77 | .62 |
| 245340CX | 75175D | SOIC-16 | Quad differential line receivers | .56 | .40 | .34 |
| 50956CX | 75175N | DIP-16 | Quad diff. EIA 422A/423A line rec. w/3-st. out | .69 | .59 | .49 |
| 243707CX | SN75LBC175D | SOIC-16 | Quadruple low power diff. line receiver | 1.24 | 1.08 | .90 |
| 243715CX | SN75LBC175N | DIP-16 | RS-422/RS-423/RS-485 diff. line receivers | 2.40 | 2.25 | 1.98 |
| 50964CX | 75176BN | DIP-8 | Differential bus transceiver | .65 | .55 | .45 |
| 251053CX | SN75LBC176AD | SOIC-8 | Differential bus transceiver | 3.19 | 2.84 | 2.56 |
| 244136CX | SN75LBC176AP | DIP-8 | RS-485 differential bus transceivers | 2.75 | 2.46 | 2.26 |
| 251846CX | SN75LBC176D | SOIC-8 | Differential bus transceiver | 1.62 | 1.31 | .86 |
| 243723CX | SN75LBC176P | DIP-8 | RS-485 differential bus transceivers | 2.15 | 1.99 | 1.75 |
| 235387CX | DS96172CN | DIP-16 | RS-485/RS-422 quad diff. line drivers | 3.80 | 3.60 | 3.45 |
| 235361CX | DS96173CN | DIP-16 | RS-485/RS-422 quad diff. line rcvrs. | 2.59 | 2.35 | 2.05 |
| 235395CX | DS96174CN | DIP-16 | RS-485/RS-422 quad diff. line drivers | 2.49 | 1.89 | 1.49 |
| 235379CX | DS96175CN | DIP-16 | RS-485/RS-422 quad diff. line receivers | 2.49 | 1.89 | 1.49 |
| 235408CX | DS96176CN | DIP-8 | RS-485/RS-422 diff. bus transceivers | 1.79 | 1.59 | 1.19 |

Interface Series



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|-----------------|---------------|---------|---|---------------------------------|---------------|---------------|
| 116206CX | TC426CPA | DIP-8 | Dual 1.5A hi speed pwr MOSFET driver | \$1.39 \$1.49 | \$1.26 | \$1.13 |
| 245593CX | TC426EOA | SOIC-8 | Dual 1.5A hi speed pwr MOSFET driver | \$1.67 1.55 | .99 | .94 |
| 242077CX | TC428CPA | DIP-8 | Dual MOSFET 1.5A driver | 1.35 | .85 | .78 |
| 242085CX | MAX626CPA | DIP-8 | Dual 1.5A-peak low-side MOSFET driver | 1.14 | .93 | .86 |
| 242093CX | MAX627CPA | DIP-8 | Dual MOSFET driver | 1.10 | .91 | .83 |
| 246692CX | LT1030N | DIP-14 | Quad low power line driver | 1.11 | .93 | .76 |
| 12239CX | CA3161E | DIP-16 | BCD to 7-seg. decoder driver | 2.13 | 1.95 | 1.38 |
| 25216CX | MC3479P | DIP-16 | Biphase stepper motor driver | \$6.75 3.99 | 3.39 | 2.69 |
| 24230CX | LM3914N | DIP-18 | Bar-graph display driver | 2.55 | 2.15 | 1.99 |
| 246625CX | LM3914V | PLCC-20 | Dot/bar display driver | 2.58 | 2.18 | 1.68 |
| 24256CX | LM3915N | DIP-18 | 3 dB steps bar-graph disp. driver | 2.49 | 1.99 | 1.55 |
| 24272CX | LM3916N | DIP-18 | VU meter display driver | 2.25 | 1.95 | 1.75 |
| 251029CX | TC4420COA | SOIC-8 | 6A high speed MOSFET drivers | \$1.59 1.45 | 1.32 | 1.19 |
| 243379CX | MM5453N | DIP-40 | Liquid crystal display driver | 2.79 | 2.29 | 2.09 |
| 241875CX | FAN8082 | DIP-8 | Bi-directional, 18V dc motor driver | .95 | .90 | .85 |
| 241867CX | FAN8200 | DIP-14 | Bi-directional, 2-ch, 9V stepper motor driver | .85 | .80 | .76 |
| 213170CX | UA9636A | DIP-8 | Dual differential line receiver (MC3488A) | \$7.79 .72 | .55 | .42 |
| 256727CX | SN65LVDS31D | SOIC-16 | High speed differential line driver | 3.32 | 2.68 | 2.10 |
| 256719CX | SN65LVDS048AD | SOIC-16 | LVDS quad differential line receiver | \$4.49 3.29 | 2.87 | 2.59 |
| 272188CX | SN65LVDS050D | SOIC-16 | High speed diff. line drivers & receivers | 3.99 | 3.23 | 2.54 |
| 241824CX | MC14489 | DIP-20 | 5V, LED display/lamp driver | 3.95 | 3.15 | 3.00 |
| 50884CX | 75154N | DIP-16 | Quad line receiver | .69 | .59 | .45 |
| 277907CX | SN75172N | DIP-16 | Quad differential line driver | 1.15 | .91 | .69 |
| 245331CX | 75173D | SOIC-16 | Quadruple differential line receiver | 1.15 | .92 | .70 |

Interface Series (Continued)



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|-----------------|--------------|--------|--|------------------------------|------------|------------|
| 50930CX | 75173N | DIP-16 | Quadruple differential line receiver | \$1.99 .99 | .95 | .91 |
| 277958CX | SN75179BD | SOIC-8 | Differential driver and receiver pair | .95 | .79 | .65 |
| 277940CX | SN75179BP | DIP-8 | Differential driver and receiver pair | 1.29 | 1.18 | 1.06 |
| 278133CX | SN75LBC180AN | DIP-14 | Low pwr diff. line driver & receiver pairs | 2.05 | 1.74 | 1.37 |
| 277966CX | SN75182N | DIP-14 | Dual differential line receivers | .79 | .66 | .55 |
| 277974CX | SN75183N | DIP-14 | Dual differential line drivers | 1.19 | .95 | .71 |
| 51027CX | 75451AN | DIP-8 | Dual peripheral AND driver | .49 | .44 | .39 |
| 51035CX | 75452N | DIP-8 | Dual peripheral NAND driver | .39 | .33 | .25 |
| 278002CX | SN75453BP | DIP-8 | Dual peripheral OR drivers | .39 | .30 | .23 |
| 277317CX | SN75454BP | DIP-8 | Dual peripheral NOR drivers | .39 | .30 | .23 |
| 277430CX | SN75462P | DIP-8 | Dual peripheral NAND drivers | .62 | .47 | .36 |
| 278037CX | SN75471P | DIP-8 | Dual peripheral AND driver | .63 | .47 | .31 |
| 278053CX | SN75472P | DIP-8 | Dual peripheral NAND driver | .54 | .42 | .37 |
| 278061CX | SN75477P | DIP-8 | Dual peripheral NAND driver | .56 | .44 | .34 |
| 51131CX | 75492 | DIP-14 | Hex digit driver (492) | 4.25 | 3.89 | 2.99 |
| 253083CX | SN751730N | DIP-16 | Triple line driver/receiver | 2.35 | 1.90 | 1.50 |



Digital Interface ICs



| Part No. | Product No. | Pkg. | Description | 1 | 10 | 50 |
|----------|-------------|--------|-----------------------------------|---------------------------------|---------------|---------------|
| 141532CX | EDE1200 | DIP-18 | Unipolar stepper motor controller | \$8.95 \$8.30 | \$6.90 | \$5.90 |
| 157526CX | EDE1204 | DIP-18 | Bipolar stepper motor controller | \$8.95 8.30 | 6.90 | 5.90 |
| 171969CX | EDE1144 | DIP-18 | Keypad encoder | 7.00 | 5.65 | 5.00 |
| 171951CX | EDE702 | DIP-18 | Serial LCD interface | 9.00 | 7.65 | 6.75 |

5000 Series and Clock Chips



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 50 |
|----------------|------------|--------|---------------------------------|-------------------------------|---------------|---------------|
| 32803CX | TCM5089N | DIP-16 | Integrated tone dialer chip | \$4.99 | \$4.49 | \$3.99 |
| 26091CX | MM5321N | DIP-16 | TV camera synchronous generator | 7.95 | 6.79 | 5.09 |
| 26171CX | MM5450N | DIP-40 | 34-segment LED display driver | \$4.95 2.99 | 2.79 | 2.39 |
| 86799CX | LM555CM | SOIC-8 | Timer (NE555D) | .29 | .25 | .22 |
| 27422CX | LM555CN** | DIP-8 | Timer (MC1455P/NE555V) | .27 | .23 | .19 |
| 126797CX | LMC555CN* | DIP-8 | CMOS 555 timer | .54 | .49 | .44 |
| 24328CX | LM556N* | DIP-14 | Dual 555 timer | .49 | .45 | .39 |
| 243395CX | DP8573AN | DIP-24 | 5V real time clock chip | 11.29 | 9.69 | 8.59 |
| 26201CX | MM58167AN | DIP-24 | Microprocessor real time clock | 4.49 | 3.85 | 2.85 |
| 95530CX | RTC72421B | DIP-18 | Real time clock module | 6.79 | 5.69 | 4.17 |
| 25101CX | MC146818 | DIP-24 | Real time clock plus RAM | 4.09 | 3.48 | 2.61 |

*10 pcs. in Linear series IC cabinet kit, pg 23

**20 pcs. in Linear series IC cabinet kit, pg 23

UARTs



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------------|------------|--------|------------------------------------|---------------|---------------|---------------|
| 43158CX | 6402 | DIP-40 | CMOS/LSI UART (TR1863) | \$4.95 | \$4.49 | \$4.05 |
| 27570CX | NS16C450N | DIP-40 | CMOS ACE (IBM-AT compat.) (82C450) | 3.49 | 2.69 | 2.09 |
| 27596CX | NS16550AN | DIP-40 | UART w/ FIFO (PC16550DN) | 5.89 | 4.49 | 3.39 |

Encoders/Decoders



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|---|-------------|-------------|-------------|
| 243942CX | HCS300 | DIP-8 | 2-6.3V, Code hopping decoder | \$1.75 | \$1.65 | \$1.55 |
| 243483CX | HCS512 | DIP-18 | 3-6V, Code hopping decoder | 7.15 | 6.85 | 6.50 |
| 243934CX | HCS515 | DIP-14 | 3-6V, Code hopping decoder | 2.90 | 2.74 | 2.60 |
| 243951CX | HCS2000 | DIP-8 | 3.5-13V, Code hopping decoder | 1.52 | 1.45 | 1.40 |
| 123730CX | HT12E | DIP-18 | Encoder 12-bit | 1.69 | 1.49 | 1.29 |
| 123748CX | HT12D | DIP-18 | Decoder 8-bit address/4-bit data | 1.69 | 1.49 | 1.29 |
| 243441CX | MCP2120 | DIP-14 | IrDA encoder/decoder | 2.10 | 1.90 | 1.80 |
| 243459CX | MCP2150 | DIP-18 | IrDA standard protocol stack controller | 7.29 | 7.05 | 6.70 |
| 243408CX | TP3054 | DIP-16 | 5V serial PCM u-Law | 2.39 | 1.79 | 1.49 |
| 243416CX | TP3057 | DIP-16 | 5V serial PCM A-Law | 2.49 | 1.75 | 1.49 |
| 243424CX | TP3064 | DIP-20 | 5V serial PCM u-Law | 3.20 | 3.05 | 2.90 |
| 243432CX | TP3067 | DIP-20 | 5V serial PCM A-Law | 2.39 | 1.95 | 1.49 |

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!
Details on page 241.

KAE Servo and Stepper Controllers

Controllers operate from standard 8-bit serial interface (RS232 or RS485). Using RS485, any mix of up to 32 controllers may be operated from a single serial port. Complete documentation.

146472CX: PIC-SERVO Motion Control Chipset for DC Motors

- PIC servo control for DC motors with digital encoders
- 32-bit position, velocity, and acceleration resolution
- PWM and direction outputs connect to servo amplifier
- Two chip set (PIC-SERVO 28-pin and PIC-ENC 18-pin)



175901CX

175901CX: PIC-STEP Motion Control Chip for Stepper Motors

- Step rates up to 50,000 steps/sec. – suitable for use with microstepping drivers
- Trapezoidal positioning and profiled velocity modes
- Programmable current limits automatically switch between holding and running currents
- Programmable accelerations and minimum step rates

| Part No. | Description | Package | 1 | 10 | 50 |
|----------|--------------------|-----------------|-----------------------------------|-----------------------------------|-----------------------------------|
| 146472CX | PIC-SERVO chip set | DIP-28/18, 0.3" | \$34.95 \$34.95 | \$29.50 \$29.50 | \$27.95 \$27.95 |
| 175901CX | PIC-STEP chip | DIP-28, 0.3" | \$25.75 \$25.75 | \$21.75 \$21.75 | \$19.75 \$19.75 |

A/D & D/A Converters

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|---------|--|---------------------------------|---------------------------------|---------------------------------|
| 43748CX | 7106CPL | DIP-40 | A/D with 3 1/2-digit LCD control | \$3.39 \$3.39 | \$2.99 \$2.99 | \$2.49 \$2.49 |
| 43756CX | 7107CPL | DIP-40 | A/D with 3 1/2-digit LED control | \$3.49 \$3.19 | \$2.59 \$2.59 | \$2.19 \$2.19 |
| 116100CX | ADC0831CCN | DIP-8 | 8-bit A/D w/ mux. diff. input (± 1 LSB), 32 μ s | 1.95 | 1.75 | 1.59 |
| 251176CX | TL0831CP | DIP-8 | 8-bit A/D w/ serial control (± 1 LSB), 32 μ s | 2.69 2.69 | 2.55 2.55 | 2.45 2.45 |
| 101455CX | ADC0803LCN | DIP-20 | 8-bit A/D 1-input ($\pm 1/2$ LSB), 100 μ s | 4.59 4.59 | 3.90 3.90 | 2.93 2.93 |
| 10153CX | ADC0804LCN | DIP-20 | 8-bit A/D 1-input (± 1 LSB), 100 μ s | 2.49 2.49 | 1.89 1.89 | 1.39 1.39 |
| 102255CX | ADC0820CCN | DIP-20 | 8-bit hi spd (1/2 μ s) A/D w/ track&hold | \$3.19 2.99 | 2.29 2.29 | 2.10 2.10 |
| 10170CX | ADC0808CCN | DIP-28 | 8-bit A/D w/ 8-ch. mux. ($\pm 1/2$ LSB), 100 μ s | 4.99 4.99 | 4.19 4.19 | 3.19 3.19 |
| 10188CX | ADC0809CCN | DIP-28 | 8-bit A/D w/ 8-ch. mux. (± 1 LSB), 100 μ s | 2.89 2.89 | 2.59 2.59 | 1.99 1.99 |
| 10209CX | ADC0817CCN | DIP-40 | 8-bit A/D w/ 16-ch. mux. ($\pm 1/2$ LSB), 100 μ s | 7.29 7.29 | 6.65 6.65 | 5.95 5.95 |
| 242296CX | TLC1543 | DIP-20 | 10-bit A/D 11-inputs (± 1 LSB), 38Ksps | 3.39 3.39 | 2.89 2.89 | 2.33 2.33 |
| 242309CX | TLC1549 | DIP-20 | 10-bit A/D 1-input (± 1 LSB), 38Ksps | 3.69 3.69 | 2.99 2.99 | 2.29 2.29 |
| 43764CX | 7109CPL | DIP-40 | 12-bit A/D 1-input (± 2 LSB), 30sps | \$7.99 7.49 | 6.37 6.37 | 4.77 4.77 |
| 277165CX | MAX186BCPP | DIP-20 | 12-bit serial A/D w/ 8-ch, low power | 29.95 | 22.84 | 14.64 |
| 277157CX | MAX186DCWP | SOIC-20 | 12-bit serial A/D w/ 8-ch, low power | 19.75 | 15.07 | 9.64 |
| 277069CX | MAX197BCNI | DIP-28 | Sngl, +5V 12-bit A/D w/ 8-ch, 1/2 LSB | 24.99 24.99 | 22.95 22.95 | 20.95 20.95 |
| 277149CX | MAX110ACWE | SOIC-16 | 14-bit serial A/D w/ 2-ch, low cost | 15.25 | 11.63 | 7.44 |
| 277131CX | MAX110BCPE | DIP-16 | 14-bit serial A/D w/ 2-ch, low cost | 11.69 | 8.93 | 5.73 |
| 277122CX | MAX110BCWE | SOIC-16 | 14-bit serial A/D w/ 2-ch, low cost | 11.69 | 8.93 | 5.73 |
| 242325CX | ADS7813 | DIP-16 | 16-bit A/D 1-input (± 2 LSB), 40Ksps | 38.83 | 35.25 | 31.55 |
| 242317CX | ADS7805 | DIP-28 | 16-bit A/D 1-input (± 3 LSB), 100Ksps | 36.05 | 34.60 | 32.95 |
| 239417CX | ADS7825 | DIP-28 | 16-bit A/D 4-inputs (± 2 LSB), 40Ksps | 46.58 | 43.47 | 40.36 |
| 115158CX | AD558JN | DIP-16 | 8-bit D/A 1-input ($\pm 1/2$ LSB), 200ns | \$15.99 12.59 | 11.99 11.99 | 11.29 11.29 |
| 540255CX | AD7523JN | DIP-16 | 8-bit D/A 1-input (± 1 LSB), 150ns | 2.99 2.99 | 2.49 2.49 | 2.19 2.19 |
| 14904CX | DAC0800LCN | DIP-16 | 8-bit D/A (± 1 LSB), 100ns | 1.79 | 1.59 | 1.45 |
| 14912CX | DAC0806LCN | DIP-16 | 8-bit D/A (± 1 LSB), 150ns (MC1408P6) | 1.89 | 1.85 | 1.82 |
| 14947CX | DAC0808LCN | DIP-16 | 8-bit D/A (± 1 LSB), 150ns (MC1408P8) | 1.59 | 1.39 | 1.09 |
| 14963CX | DAC0830LCN | DIP-20 | 8-bit D/A double buffer (.05% Lin.), 1 μ s | 5.95 5.95 | 4.49 4.49 | 4.35 4.35 |
| 128186CX | DAC0832LCN | DIP-20 | 8-bit D/A double buffer (.20% Lin.), 1 μ s | \$3.09 3.09 | 2.99 2.99 | 1.89 1.89 |
| 239425CX | TLC5615 | DIP-8 | 10-bit D/A 1-input (± 1 LSB), 12 μ s | 3.49 | 2.79 | 2.29 |
| 14980CX | DAC1222LCN | DIP-18 | 12-bit D/A (.20% Lin.), 500ns | 9.95 | 8.95 | 8.05 |
| 243344CX | DAC716 | DIP-16 | 16-bit D/A w/ serial interf. (± 1 LSB), 10 μ s | 27.38 | 25.55 | 23.72 |
| 239433CX | DAC712 | DIP-28 | 16-bit D/A 1-input (± 1 LSB), 10 μ s | 18.69 | 17.49 | 16.19 |
| 242771CX | DAC714P | DIP-16 | 16-bit D/A w/ serial interf. (± 1 LSB), 10 μ s | 20.85 | 19.63 | 18.23 |
| 243336CX | DAC715 | SOIC-28 | 16-bit D/A w/ bus interface (± 1 LSB), 10 μ s | 34.60 | 32.90 | 31.35 |
| 243352CX | DAC725 | DIP-28 | 16-bit D/A 2-input (± 1 LSB), 8 μ s | 199.95 | 190.55 | 171.49 |

Linear and Interface IC Kit

SAVE \$52

10 each: TL072CP, TL074CN, TL082CP, TL084CN, MAX232CPE, LM301N, LM308N, LM311N, LM337T, LF353N, LF356N, LM358N, LM386N-1, LM386N-3, LM393N, LF411CN, LF412CN, LM555CN, LM556N, LM723CN, LM1458N, DS1488N, DS1489N, ULN2003AN, ULN2803A, NE5532N, 7808T, 78L12CZ, 7815T, 7905T, 7912T, 7915T

20 each: LM317T, LM324N, LM339N, LM741CN, LM555CN, 7805T, 78L05CZ, 7812T



84990CX

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-----------------------------------|------------|-------------------------------------|-------------------------------------|
| 84990CX | 480 pcs. (40 types) analog IC kit | 6.0 | \$182.95 \$182.95 | \$164.65 \$164.65 |
| 130413CX | Refill for 84988CX (480 pcs.) | 1.3 | 169.95 169.95 | 145.95 145.95 |

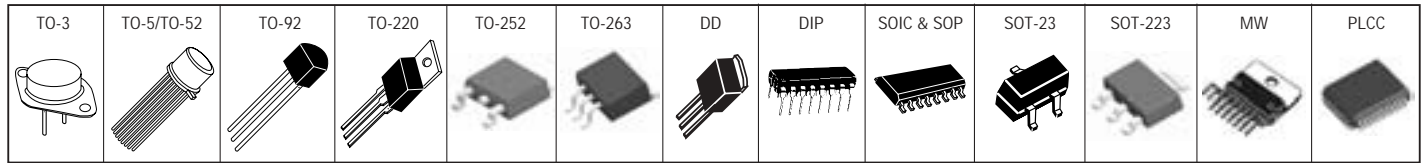
Voltage Regulators

Package (see pg 24)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|---------------|-----------|---|---------------------------------|---------------------------------|---------------------------------|
| 282618CX | LM1117H | TO-39 | 3-terminal adjustable regulator | \$6.45 \$6.45 | \$5.17 \$5.17 | \$4.20 \$4.20 |
| 282036CX | LM140LAH-5.0 | TO-39 | 3-terminal positive regulator | 5.55 | 4.27 | 3.24 |
| 23499CX | LM309K | TO-3/2 | 5V 1A regulator (0°C to +125°C) | 4.99 4.99 | 3.85 3.85 | 2.98 2.98 |
| 192268CX | LM317AT | TO-220/3 | 3-terminal adjustable reg. (1.2V-37V) | 1.75 | 1.25 | .95 |
| 192276CX | LM317HVT | TO-220/3 | 3-terminal adjustable reg. (1.2V-57V) | 2.35 | 1.75 | 1.29 |
| 23544CX | LM317K | TO-3/2 | 1.5A adj. pos. reg. (1.2V-37V) | 1.75 1.75 | 1.49 1.49 | 1.12 1.12 |
| 193551CX | LM317LM | SOIC-8 | 100mA adj. pos. regulator (1.2V to 37V) | .33 | .29 | .20 |
| 23552CX | LM317LZ | TO-92 | 100mA adj. pos. reg. (1.2V-37V) | .23 | .22 | .20 |
| 23579CX | LM317T** | TO-220/3 | 1.5A adj. pos. reg. (1.2V-37V) | .45 | .39 | .34 |
| 23667CX | LM323K | TO-3/2 | 5V 3A positive regulator | 2.89 2.89 | 2.75 2.75 | 2.29 2.29 |
| 23798CX | LM337K | TO-3/2 | 1.5A/3 term. adj. neg. reg. | 2.79 2.79 | 2.69 2.69 | 2.45 2.45 |
| 193586CX | LM337LM | SOIC-8 | 1.5A adj. neg. regulator (-1.2V to -37V) | .79 | .69 | 4.49 4.49 |
| 23819CX | LM337T* | TO-220/3 | 1.5A/adj. neg. reg. (-1.2V-37V) | .69 | .59 | .49 |
| 23835CX | LM338K | TO-3/2 | 5A adj. pos. reg. (1.2V-32V) | 4.95 | 3.89 | 3.25 |
| 192284CX | LM338T | TO-220/3 | 5A adjustable regulator | 1.99 | 1.49 | .99 |
| 23931CX | LM350K | TO-3/2 | 3A/3 term. adj. pos. reg. (1.2V-33V) | 4.75 4.75 | 3.75 3.75 | 2.89 2.89 |
| 23940CX | LM350T | TO-220/3 | 3 amp. adj. power regulator | \$1.15 1.09 | .89 .89 | .69 .69 |
| 239134CX | LM431ACM | SOIC-8 | Programmable shunt regulator | .29 | .25 | .22 |
| 278248CX | TL431AILP | TO-92 | Adjustable precision shunt regulator | .41 | .34 | .23 |
| 239142CX | LM431BCM | SOIC-8 | Programmable shunt regulator | .31 | .26 | .25 |
| 251862CX | LM431CIM | SOIC-8 | Adj. precision zener shunt regulator | .37 | .32 | .28 |
| 276525CX | MAX637ACPA | DIP-8 | Preset/Adj. output CMOS invert switching reg. | 6.25 | 4.77 | 3.08 |
| 276517CX | MAX637ACSA | SOIC-8 | Preset/Adj. output CMOS invert switching reg. | 6.45 | 4.93 | 3.19 |
| 214050CX | LM723CD | DIP-14 | High precision voltage regulator | .32 | .28 | .26 |
| 24467CX | LM723CN* | DIP-14 | Voltage regulator (2V-37V) | .26 | .24 | .23 |
| 282781CX | LD1085D2M33 | TO-263A | 3A low drop pos volt reg. adj. & fixed | 1.09 | 1.03 | .94 |
| 282757CX | LT1085V | TO-263 | 3A low drop pos volt reg. adj. & fixed | 1.09 | 1.03 | .94 |
| 244304CX | LD1086D2M | TO-263/3 | adjustable, low dropout voltage reg. | 1.08 | .97 | .89 |
| 244312CX | LD1086D2M33 | TO-263/3 | 3.3V, low dropout voltage regulator | 1.07 | .96 | .89 |
| 245585CX | LD1086D2M50 | TO-263/3 | 5.0V, low drop positive voltage reg. | 1.09 1.09 | .97 .97 | .88 .88 |
| 245526CX | LM1086CS-ADJ | TO-263/3 | 1.5A low dropout positive regulator | \$1.05 1.09 | .81 .81 | .59 .59 |
| 192305CX | LM1086CT-3.3 | TO-220/3 | 1.5A low dropout positive reg. (3.3V) | 1.18 | .87 | .64 |
| 192313CX | LM1086CT-5.0 | TO-220/3 | 1.5A low dropout positive reg. (5V) | 1.18 | .87 | .64 |
| 192292CX | LM1086CTADJ | TO-220/3 | 1.5A low dropout positive reg. | \$1.22 1.09 | .79 .79 | .59 .59 |
| 242042CX | LM1117DT-3.3 | TO-252/3 | 800mA low dropout linear reg. | .74 | .54 | .40 |
| 242069CX | LM1117DT-5.0 | TO-252/3 | 800mA, 5V, low dropout voltage reg. | .74 | .54 | .40 |
| 251782CX | LM1117MPX-ADJ | SOT-223/3 | 800mA low drop out linear regulator | \$1.60 .37 | .35 .35 | .33 .33 |
| 242114CX | LM1117T-3.3 | TO-220/3 | 800mA, 3.3V, low dropout voltage reg. | .73 | .68 | .63 |
| 243539CX | LM1117T-ADJ | TO-220/3 | 800mA, adj., low dropout voltage reg. | .82 | .71 | .52 |
| 244216CX | LT1585ACT-3.3 | TO-220/3 | 5A, 3.3V, low dropout voltage reg. | 4.40 | 3.97 | 3.57 |
| 244224CX | LT1585ACT-ADJ | TO-220/3 | 5A, adjustable, low dropout volt. reg. | 4.75 | 4.20 | 3.60 |
| 244144CX | LT1587CM | DD/3 | 3A, low dropout voltage regulator | 5.85 | 4.00 | 3.45 |
| 244152CX | LT1587CT-3.3 | TO-220/3 | 3A, 3.3V, low dropout voltage reg. | .82 | .79 | .76 |
| 244161CX | LM1587CT-ADJ | TO-220/3 | 3A low dropout fast response reg. | .79 | .73 | .63 |
| 192330CX | LM2574HVN-5.0 | DIP-8 | Simple switcher 0.5A step-down volt. reg. | 3.50 | 2.69 | 2.09 2.09 |
| 192348CX | LM2574HVN-12 | DIP-8 | Simple switcher 0.5A step-down volt. reg. | 3.49 3.49 | 2.69 2.69 | 2.09 2.09 |
| 245551CX | LM2574N-ADJ | DIP-8 | Simple switcher 0.5A step-down volt. reg. | \$1.39 1.29 | 1.17 1.17 | 1.05 1.05 |
| 156566CX | LM2574N-5 | DIP-8 | Step-down 5-voltage regulator | 1.69 | 1.27 | .95 |
| 279638CX | LM2575HVT-5.0 | TO-220 | Simple switcher 1A step down volt reg. | 4.35 | 3.35 | 3.15 |
| 279603CX | LM2575HVT-12 | TO-220 | Simple switcher 1A step down volt reg. | 4.35 | 3.32 | 2.51 |
| 192399CX | LM2576HVT-12 | TO-220/5 | Simple switcher 3A step down volt. reg. | 5.89 | 4.53 | 3.49 |
| 192381CX | LM2576HVT-5.0 | TO-220/5 | Simple switcher 3A step down volt. reg. | 5.90 | 4.53 | 3.49 3.49 |
| 192372CX | LM2576HVT-ADJ | TO-220/5 | Simple switcher 3A step down volt. reg. | 3.95 | 3.65 | 3.04 |
| 245569CX | LM2576T-5.0 | TO-220/5 | Simple switcher 3A step down volt. reg. | 2.30 2.30 | 1.76 1.76 | 1.36 1.36 |
| 120977CX | LM2576T-ADJ | TO-220/5 | Simple switcher 3A step down volt. reg. | \$2.05 1.89 | 1.51 1.51 | 1.19 1.19 |
| 192410CX | LM2587T-ADJ | TO-220/5 | Simple switcher 5A flyback regulator | 5.59 | 5.25 | 4.85 |
| 192428CX | LM2594N-ADJ | DIP-8 | Simple switcher pwr. conv. 150kHz 0.5A | 2.65 | 2.05 | 1.59 1.59 |
| 192452CX | LM2595T-5.0 | TO-220/5 | Simple switcher pwr. conv. 150kHz 1A | 3.49 | 2.89 | 2.19 |
| 121030CX | LM2931AZ-5.0 | TO-92 | 5V low dropout regulator | \$1.49 .49 | .43 .43 | .31 .31 |
| 23368CX | LM2931CT | TO-220/5 | 3V-24V low dropout regulator | .68 | .59 | .48 |
| 256612CX | LM2931D-5.0 | SOIC-8 | 5V low dropout regulator | .46 | .40 | .35 |
| 121048CX | LM2931Z-5.0 | TO-92 | 5V low dropout regulator | \$1.39 .39 | .36 .36 | .34 .34 |
| 245649CX | LM2936MP-3.3 | SOT-223 | Ultra-low quiescent current 3.3V reg. | 3.25 | 2.93 | 2.64 |
| 107166CX | LM2936Z-5 | TO-92 | Ultra-low quiescent current 5V reg. | 1.76 | 1.60 | 1.18 |
| 192495CX | LM2940CT-12 | TO-220/3 | 12V low dropout reg. (max. 45Vin) | 1.27 | 1.02 | .75 |
| 107182CX | LM2940CT-5 | TO-220/3 | 5V low dropout reg. (max. 45Vin) | \$1.48 1.39 | 1.05 1.05 | .77 .77 |

*10 pieces

Call for pricing on quantities over 100 – we carry major manufacturers. We will special order any IC – \$100 minimum.



Voltage Regulators (Continued)



Package (see above)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|---------------|----------|---|---------------------|--------|--------|
| 245657CX | LM2941CS | TO-263/5 | 1A low dropout adjustable regulator | \$1.80 | \$1.33 | \$.99 |
| 121064CX | LM2941CT | TO-220/5 | 1A low dropout adjust. reg. (45Vin) | .93 | .82 | .66 |
| 23376CX | LM2941T | TO-220/5 | 1A low dropout adjust. reg. (60Vin) | 1.59 | 1.19 | .89 |
| 121101CX | LP2950ACZ-5.0 | DIP-8 | 100mA low pwr. low dropout volt. reg. | 1.02 | .76 | .56 |
| 266781CX | LP2950CDT-5.0 | TO-252/3 | 100mA low pwr. low drop out volt. reg. | .99 | .74 | .54 |
| 266845CX | LP2950CZ-3.0 | TO-92 | 100mA low pwr. low drop out volt. reg. | .80 | .60 | .47 |
| 266757CX | LP2950CZ-5.0 | TO-92 | 100mA low pwr. low drop out volt. reg. | .80 | .59 | .44 |
| 239151CX | LP2951CM | SOIC-8 | Adjustable micropower voltage regulator | .91 | .68 | .49 |
| 277077CX | LP2952IM | SOIC-16 | Adj. micropower low pwr volt reg. | 2.35 | 1.75 | 1.31 |
| 266699CX | LP2967BP-2533 | BPA-8 | Dual micropower 150ma low drop-out reg. | 2.85 | 2.17 | 1.67 |
| 266589CX | LP2967BP-2828 | BPA-8 | Dual micropower 150ma low drop-out reg. | 2.69 | 2.16 | 1.67 |
| 266626CX | LP2967MM-2528 | MSOP-8 | Dual micropower 150ma low drop-out reg. | 2.15 | 1.98 | 1.52 |
| 266407CX | LP2967MM-2533 | MSOP-8 | Dual micropower 150ma low drop-out reg. | 2.75 | 2.10 | 1.54 |
| 266597CX | LP2967MM-2626 | MSOP-8 | Dual micropower 150ma low drop-out reg. | 2.15 | 1.98 | 1.52 |
| 266642CX | LP2967MM-2828 | MSOP-8 | Dual micropower 150ma low drop-out reg. | 2.15 | 1.98 | 1.72 |
| 266706CX | LP2986ILD-3.0 | LLP-8 | uPwr, 200mA ultra low dropout fixed volt reg. | 1.79 | 1.69 | 1.27 |
| 266722CX | LP2987ILD-5.0 | LLP-8 | Same as above w/ prog. pwr-on reset delay | 1.79 | 1.63 | 1.27 |
| 246545CX | LM3480IM3-3.3 | SOT-23/3 | 100mA quasi low dropout linear volt. reg. | 1.39 .99 | .90 | .81 |
| 246553CX | LM3480IM3-5.0 | SOT-23/3 | 100mA quasi low dropout linear volt. reg. | 1.39 .99 | .74 | .55 |
| 192524CX | LM3940IT-3.3 | TO-220/3 | 1A low dropout reg. for 5V to 3.3V conv. | 2.29 | 1.59 | 1.09 |
| 51246CX | 7805K | TO-3/2 | 5V 1A pos. voltage reg. (LM340K-5) | 4.35 | 3.50 | 2.85 |
| 51262CX | 7805T** | TO-220/3 | 5V 1A pos. voltage reg. (LM340T-5) | .35 | .32 | .28 |
| 51182CX | 78L5CZ** | TO-92 | 5V 100mA pos. voltage regulator | .27 | .24 | .22 |
| 193754CX | 78L05ACM | SOIC-8 | 5V 100mA pos. voltage regulator | .30 | .26 | .24 |
| 192233CX | 78M05 | TO-220/3 | 5V 500mA pos. voltage regulator | .35 | .32 | .28 |
| 51297CX | 7806T | TO-220/3 | 6V 1A pos. voltage reg. (LM340T-6) | .30 | .25 | .23 |
| 193762CX | 78L06ACM | SOIC-8 | 6.2V 100mA pos. voltage regulator | .29 | .25 | .18 |
| 51300CX | 7808T* | TO-220/3 | 8V 1A pos. voltage reg. (LM340T-8) | .46 | .35 | .28 |
| 192225CX | 78L09 | TO-92 | 9V 100mA pos. voltage regulator | .24 | .23 | .17 |
| 51318CX | 7812K | TO-3/2 | 12V 1A pos. voltage reg. (LM340K-12) | 1.69 | 1.55 | 1.39 |
| 51334CX | 7812T** | TO-220/3 | 12V 1A pos. voltage reg. (LM340T-12) | .35 | .32 | .28 |
| 51203CX | 78L12CZ* | TO-92 | 12V 100mA pos. voltage regulator | .19 | .155 | .13 |
| 193771CX | 78L12ACM | SOIC-8 | 12V 100mA pos. voltage regulator | .38 | .34 | .24 |
| 192241CX | 78M12 | TO-220/3 | 12V 500mA pos. voltage regulator | .24 | .22 | .185 |
| 51369CX | 7815K | TO-3/2 | 15V 1A pos. voltage reg. (LM340K-15) | 1.30 | 1.20 | 1.12 |
| 51377CX | 7815T* | TO-220/3 | 15V 1A pos. voltage reg. (LM340T-15) | .28 | .25 | .22 |
| 193789CX | 78L15ACM | SOIC-8 | 15V 100mA pos. voltage regulator | .20 | .19 | .14 |
| 192250CX | 78M15 | TO-220/3 | 15V 500mA pos. voltage regulator | .29 | .25 | .20 |
| 194634CX | 7818T | TO-220/3 | 18V 1A pos. voltage reg. (LM340T-18) | .46 | .35 | .27 |
| 51414CX | 7824T | TO-220/3 | 24V 1A pos. voltage reg. (LM340T-24) | .36 | .34 | .31 |
| 51238CX | 78S40 | DIP-16 | 1.25V-40V 1.5A switching regulator | 1.05 | .94 | .84 |
| 51457CX | 7905T* | TO-220/3 | 5V 1A neg. voltage reg. (LM320T-5) | .42 | .38 | .36 |
| 51422CX | 79L05 | TO-92 | 5V 100mA neg. voltage regulator | .24 | .21 | .17 |
| 193797CX | 79L05ACM | SOIC-8 | -5V 100mA neg. voltage regulator | .28 | .24 | .18 |
| 51449CX | 79M05 | TO-220/3 | 3-terminal negative regulator | .39 | .26 | .20 |
| 51481CX | 7912T* | TO-220/3 | 12V 1A neg. voltage reg. (LM320T-12) | .30 | .25 | .20 |
| 51431CX | 79L12 | TO-92 | 12V 100mA neg. voltage regulator | .19 | .14 | .12 |
| 193800CX | 79L12ACM | SOIC-8 | -12V 100mA neg. voltage regulator | .35 | .30 | .22 |
| 51502CX | 7915T* | TO-220/3 | 15V 1A neg. voltage reg. (LM320T-15) | .32 | .27 | .22 |
| 194749CX | 79L15 | TO-92 | 15V 100mA neg. voltage regulator | .21 | .16 | .14 |
| 193818CX | 79L15ACM | SOIC-8 | -15V 100mA neg. voltage regulator | .19 | .17 | .15 |
| 252241CX | MC29152BU | TO-263/5 | 1.5A high current low dropout regulators | 2.75 | 2.59 | 2.27 |
| 251344CX | TP76201DBVR | SOT-23/5 | 100mA low pwr low output adj. LDO linear reg. | 1.29 | 1.16 | 1.04 |

*10 pieces included in Linear kit on page 23

**20 pcs. in Linear series IC cabinet kit, pg 23



See page 227 for 7400, 74LS, 4000 Series and Analog IC Cabinet Kits.

Linear Op Amps



Package (see above)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|---------|--|------------------------|--------|--------|
| 23051CX | LH0002CN | DIP-10 | General purpose buffer | \$9.95 | \$8.95 | \$7.95 |
| 193471CX | OP07CD | SOIC-8 | Very low offset single bipolar op amp. | .62 | .56 | .47 |
| 27852CX | OP07CP | DIP-8 | Ultra-low-offset-voltage op amp. | 1.69 .69 | .58 | .51 |
| 252988CX | OP07DP | DIP-8 | Very low offset single bipolar op amp. | .62 | .52 | .42 |
| 23106CX | LM10CLN | DIP-8 | Low voltage (1.1 volt) op amp. | 1.79 | 1.60 | 1.36 |
| 120715CX | LM10CN | DIP-8 | Op amp and voltage reference | 2.90 | 2.51 | 1.98 |
| 120723CX | LM12CLK | TO-3/4 | 80W op amp. | 19.05 | 18.65 | 18.19 |
| 213090CX | TL022CP | DIP-8 | Dual low power op amp. | 1.06 | .89 | .69 |
| 252996CX | OP27EZD | DIP-8 | Low noise hi speed precision op amp. | 14.35 14.35 | 12.49 | 11.29 |
| 115300CX | OP27EP | DIP-8 | Low noise precision op amp. | 3.85 3.85 | 3.05 | 2.49 |
| 115318CX | OP27GP | DIP-8 | Low noise prec. op amp. (-40°C to 80°C) | 1.45 | 1.32 | 1.16 |
| 275805CX | OPA27GP | DIP-8 | Ultra-low noise, precision op amp. | 2.09 | 1.69 | 1.33 |
| 275784CX | OPA27GU | DIP-8 | Ultra-low noise, precision op amp. | 2.09 | 1.69 | 1.33 |
| 253032CX | TL031CD | SOIC-8 | Enhanced JFET low pwr low offset op amp. | 1.79 .79 | .66 | .53 |
| 213102CX | TL031CP | DIP-8 | Enhanced JFET low pwr low offset op amp. | .71 | .61 | .49 |
| 279671CX | TL032ACP | DIP-8 | Enhanced JFET low pwr low offset op amp. | 1.89 | 1.69 | 1.52 |
| 253059CX | TL032CD | SOIC-8 | Enhanced JFET low pwr low offset op amp. | 1.79 .79 | .85 | .69 |
| 213111CX | TL032CP | DIP-8 | Enhanced JFET low pwr low offset op amp. | .75 | .69 | .64 |
| 253235CX | TL034CD | SOIC-14 | Enhanced JFET low pwr low offset op amp. | 1.12 | .91 | .69 |
| 214068CX | TL034CN | DIP-14 | Enhanced low pwr low offset op amp. | 1.03 | .83 | .63 |
| 275768CX | OPA37GP | DIP-8 | Ultra-low noise, precision op amp. | 1.95 | 1.58 | 1.24 |
| 275750CX | OPA37GU | SOIC-8 | Ultra-low noise, precision op amp. | 1.95 | 1.58 | 1.24 |
| 213129CX | TL052ACP | DIP-8 | Enhanced JFET low offset op amp. | 1.63 | 1.30 | .98 |
| 253243CX | TL054ACD | SOIC-14 | Enhanced JFET low offset op amp. | 5.39 5.39 | 4.89 | 4.39 |
| 213153CX | TL054ACN | DIP-14 | Enhanced JFET low offset op amp. | 4.99 | 4.24 | 3.18 |
| 213145CX | TL054CN | DIP-14 | Enhanced JFET low offset op amp. | 1.49 | 1.20 | .91 |
| 213137CX | TL061ACP | DIP-8 | Low power JFET input op amp. | .61 | .51 | .42 |
| 242106CX | TL061IP | DIP-8 | Low power JFET op amp. | .72 | .53 | .45 |
| 252283CX | TL062ACD | SOIC-8 | Low power JFET input op amp. | .74 | .59 | .54 |
| 33161CX | TL062CP | DIP-8 | Low power JFET op amp. (VCC 8-pin) | .21 | .20 | .18 |
| 253104CX | TL064BCD | SOIC-14 | Low power JFET input op amp. | .69 | .58 | .47 |
| 253139CX | TL064BCN | DIP-14 | Low power JFET input op amp. | 1.69 .69 | .58 | .47 |
| 33179CX | TL064CN | DIP-14 | Low power JFET input op amp. | .43 | .35 | .26 |
| 213081CX | TL071ACP | DIP-8 | Low noise JFET input op amp. | .59 | .45 | .34 |
| 33187CX | TL071CP | DIP-8 | Low noise JFET op amp. | .39 | .30 | .23 |
| 278264CX | TL071CD | SOIC-8 | Wide-band, high-output drive op amp. | 1.09 | .94 | .75 |
| 278272CX | TL071IP | DIP-8 | Wide-band, high-output drive op amp. | 1.19 | .99 | .80 |
| 213073CX | TL072ACP | DIP-8 | Low noise JFET input op amp. | .52 | .39 | .29 |
| 253147CX | TL072BCP | DIP-8 | Low noise JFET input op amp. | .56 | .42 | .32 |
| 193501CX | TL072CD | SOIC-8 | Low noise JFET dual op amp. | 1.39 .39 | .33 | .25 |
| 33195CX | TL072CP* | DIP-8 | Low noise JFET dual op amp. | .26 | .25 | .19 |
| 278299CX | TL072CD | SOIC-8 | Wide-band, high-output drive op amp. | 1.39 | 1.18 | 1.06 |
| 278281CX | TL072CP | DIP-8 | Wide-band, high-output drive op amp. | 1.39 | 1.12 | .84 |
| 213065CX | TL074BCN | DIP-14 | Low noise JFET input op amp. | .69 | .58 | .47 |
| 193519CX | TL074CD | SOIC-8 | Low noise JFET quad op amp. | .40 | .32 | .25 |
| 33216CX | TL074CN* | DIP-14 | Low noise JFET quad op amp. | .37 | .30 | .23 |
| 278336CX | TL074CD | SOIC-14 | Wide-band, high-output drive op amp. | 2.09 | 1.91 | 1.72 |
| 278328CX | TL074CN | DIP-14 | Wide-band, high-output drive op amp. | 1.95 | 1.58 | 1.43 |
| 278352CX | TL080AIP | DIP-8 | Wide-band, high-output drive op amp. | 1.29 | 1.04 | .82 |
| 278344CX | TL080IP | DIP-8 | Wide-band, high-output drive op amp. | 1.18 | .91 | .82 |
| 213057CX | TL081ACP | DIP-8 | JFET input op amp. | .66 | .50 | .39 |
| 253155CX | TL081CD | SOIC-8 | JFET input op amp. | .39 | .30 | .23 |
| 33232CX | TL081CP | DIP-8 | JFET input op amp. | .31 | .30 | .26 |
| 214076CX | TL082ACP | DIP-8 | JFET input op amp. | .39 | .30 | .23 |
| 253198CX | TL082BCP | DIP-8 | JFET input op amp. | 1.43 .43 | .32 | .30 |
| 193527CX | TL082CD | SOIC-8 | JFET input dual op amp. | .29 | .27 | .25 |
| 33241CX | TL082CP* | DIP-8 | JFET input dual op amp. | .38 | .33 | .29 |
| 214084CX | TL084ACN | DIP-14 | JFET input op amp. | .72 | .55 | .42 |
| 253219CX | TL084BCD | SOIC-14 | JFET input op amp. | .73 | .65 | .60 |

*10 pcs. in Linear series IC cabinet kit, pg 23

Call for pricing on quantities over 100 – we carry major manufacturers.

We will special order any IC – \$100 minimum.

Linear Op Amps (Continued)

Package (see pg 24)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|-----------------|------------|---------|--|--------|--------|--------|
| 193535CX | TL084CD | SOIC-14 | JFET input quad op amp. | \$.46 | \$.40 | \$.36 |
| 33267CX | TL084CN* | DIP-14 | JFET input quad op amp. | .43 | .39 | .34 |
| 277624CX | INA103KP | DIP-16 | Low noise/distortion instrumentation amp. ... | 8.05 | 6.51 | 5.55 |
| 277632CX | INA103KU | SOIC-16 | Low noise/distortion instrumentation amp. ... | 8.05 | 6.51 | 5.55 |
| 278408CX | TPA112D | SOIC-8 | 150mW stereo audio power amplifier | .89 | .75 | .60 |
| 282626CX | LM124D | SOIC-14 | Low power quad op amp. mil temp. | 1.25 | 1.13 | 1.05 |
| 126818CX | LM124J | DIP-14 | Low power quad op amp. mil temp. | 2.45 | 1.87 | 1.44 |
| 276488CX | OPA124U | SOIC-8 | Low noise precision DIFET op amp. | 6.49 | 5.26 | 4.48 |
| 276496CX | OPA124UA | SOIC-8 | Low noise precision DIFET op amp. | 7.69 | 6.23 | 5.31 |
| 275856CX | OPA130UA | SOIC-8 | Low power precision FET input op amp. | 2.55 | 2.06 | 1.62 |
| 243686CX | OPA137PA | DIP-8 | FET op amp. | 1.46 | 1.31 | 1.20 |
| 243694CX | OPA137UA | SOIC-8 | FET input op amp. | 1.45 | 1.31 | 1.20 |
| 212118CX | LM224N | DIP-14 | Low power quad op amp. | .35 | .28 | .22 |
| 275813CX | OPA234UA | SOIC-8 | Low pwr precision snlgl supply op amp. | 2.05 | 1.66 | 1.30 |
| 212142CX | LM258N | DIP-8 | Low power dual op amp. | .27 | .22 | .18 |
| 279742CX | TLC271CD | SOIC-8 | LinCMOS programmable low pwr op amp. | .85 | .63 | .48 |
| 279734CX | TLC271CP | DIP-8 | Low noise precision low pwr op amp. | .60 | .56 | .48 |
| 279806CX | TLC272CD | SOIC-8 | LinCMOS precision dual op amp. | .79 | .60 | .45 |
| 143917CX | TLC272CP | DIP-8 | LinCMOS precision dual op amp. | .72 | .55 | .41 |
| 280233CX | TLC272CD | SOIC-8 | LinCMOS precision dual op amp. | .68 | .57 | .46 |
| 280225CX | TLC272CP | DIP-8 | LinCMOS precision dual op amp. | .70 | .59 | .48 |
| 280188CX | TLC27M2CD | SOIC-8 | LinCMOS precision dual op amp. | .68 | .57 | .46 |
| 280170CX | TLC27M2CP | DIP-8 | LinCMOS precision dual op amp. | .68 | .57 | .46 |
| 242000CX | TLC274ACN | DIP-14 | Quad precision op amp. | .85 | .63 | .53 |
| 242018CX | TLC274BCN | DIP-14 | Quad precision op amp. | .89 | .79 | .73 |
| 242026CX | TLC274CN | DIP-14 | CMOS precision quad op amp | .55 | .50 | .43 |
| 242034CX | TLC274IN | DIP-14 | Quad CMOS op-amp. | .75 | .62 | .51 |
| 280217CX | TLC274CD | SOIC-14 | LinCMOS precision quad op amp. | .81 | .68 | .55 |
| 280209CX | TLC274CN | DIP-14 | LinCMOS precision quad op amp. | .60 | .55 | .47 |
| 280161CX | TLC27M4CD | SOIC-14 | LinCMOS precision quad op amp. | .81 | .68 | .55 |
| 243678CX | OP275G | DIP-8 | Dual JFET audio op amp. | 3.00 | 2.60 | 2.25 |
| 243660CX | OP275GS | SOIC-8 | Dual JFET audio op amp. | 1.58 | 1.19 | 1.02 |
| 280241CX | TLC277CP | DIP-8 | LinCMOS precision dual op amp. | 1.55 | 1.23 | .98 |
| 280196CX | TLC277CD | SOP-8 | LinCMOS precision dual op amp. | 1.39 | 1.26 | 1.13 |
| 280145CX | TLC27M7CD | SOIC-8 | LinCMOS precision dual op amp. | 1.39 | 1.26 | 1.13 |
| 280153CX | TLC27M7CP | DIP-8 | LinCMOS precision dual op amp. | 1.39 | 1.26 | 1.13 |
| 245665CX | LM301AH | TO-5/8 | Operational amplifier | 2.14 | 1.64 | 1.27 |
| 212151CX | LM301AN | DIP-8 | Operational amplifier | .47 | .42 | .30 |
| 23392CX | LM301N* | DIP-8 | Improved op amp. | .47 | .42 | .30 |
| 245673CX | LM308AH | TO-5/8 | Precision op amp. | 2.99 | 2.29 | 1.78 |
| 23464CX | LM308N* | DIP-8 | Precision op amp. | 4.49 | 3.99 | 3.49 |
| 245681CX | LM318M | SOIC-8 | Precision high speed op amp. | 1.15 | .85 | .64 |
| 23608CX | LM318N | DIP-8 | Precision hi-speed op amp. | .56 | .52 | .46 |
| 245702CX | LM324AM | SOIC-14 | Low power quad op amp. | .27 | .23 | .20 |
| 212169CX | LM324AN | DIP-14 | Low power quad op amp. | .22 | .21 | .19 |
| 86721CX | LM324D | SOIC-14 | Low power quad op amp. | .29 | .21 | .18 |
| 23683CX | LM324N** | DIP-14 | Low power quad op amp. | .27 | .23 | .20 |
| 192559CX | LP324N | DIP-14 | Micropower quad op amp. | .79 | .59 | .45 |
| 241963CX | LMV324M | SOIC-14 | Low voltage, general purpose op amp | .91 | .75 | .58 |
| 245438CX | LF347BD | SOIC-14 | Quad JFET input op amp. (wide bandwidth) ... | 1.35 | 1.19 | 1.09 |
| 245420CX | LF347M | SOIC-14 | Quad JFET input op amp. (wide bandwidth) ... | .54 | .47 | .35 |
| 22904CX | LF347N | DIP-14 | Quad JFET input op amp. (wide band) | .36 | .30 | .28 |
| 275776CX | OPA347PA | DIP-8 | Micropower rail-to-rail op amp. | 1.25 | 1.06 | .86 |
| 246570CX | LM348M | SOIC-14 | Quad 741 op amp. | .59 | .43 | .31 |
| 23915CX | LM348N | DIP-14 | Quad 741 op amp. (UPC4741C) | .35 | .29 | .26 |
| 22912CX | LF351N | DIP-8 | BIFET op amp. | .39 | .35 | .29 |
| 245518CX | LF353D | SOIC-8 | Dual JFET input op amp. (wide bandwidth) | .37 | .30 | .23 |
| 22939CX | LF353N* | DIP-8 | Dual BIFET op amp. (comp. w/ TL082CP) ... | .39 | .35 | .29 |
| 193607CX | LF356M | SOIC-8 | JFET input op amp. (wide band) | .56 | .51 | .41 |
| 22971CX | LF356N* | DIP-8 | JFET input op amp. (wide band) | .79 | .69 | .59 |
| 22998CX | LF357N | DIP-8 | JFET input op amp. (wide band decomp.) | 2.35 | 1.99 | 1.49 |
| 246588CX | LM358AM | SOIC-8 | Low power dual op amp. | .23 | .22 | .20 |
| 120862CX | LM358AN | DIP-8 | Low power dual op amp. (elect improv.) | .45 | .37 | .28 |
| 193615CX | LM358D | SOIC-8 | Low power dual op amp. | .23 | .20 | .18 |
| 23966CX | LM358N* | DIP-8 | Low power dual op amp. | .20 | .18 | .17 |
| 277106CX | LMV358M | SOIC-8 | Low-volt rail-to-rail output dual op amp. | .85 | .64 | .46 |

*10 pcs. in Linear series IC cabinet kit, pg 23

**20 pcs. in Linear series IC cabinet kit, pg 23

Linear Op Amps (Continued)

Package (see pg 24)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|-----------------|-----------------|---------------|--|-------------|-------------|-------------|
| 24037CX | LM380N | DIP-14 | 2-watt audio power amp. | \$.85 | \$.79 | \$.57 |
| 24088CX | LM383T | TO-220/5 | 7-watt audio high power amp. | 5.95 | 5.39 | 4.95 |
| 24096CX | LM384N | DIP-14 | 5-watt audio amp. | 1.21 | 1.15 | .83 |
| 193623CX | LM386M-1 | SOIC-8 | Low volt. audio power amp. 250mW/12V ... | .32 | .28 | .25 |
| 24125CX | LM386N-1* | DIP-8 | Low voltage audio amp. 250mW/6V | .39 | .35 | .29 |
| 24133CX | LM386N-3* | DIP-8 | Low voltage audio amp. 500mW/9V | .69 | .59 | .49 |
| 276736CX | MAX410CPA | DIP-8 | Sngl 28MHz low noise, low volt prec op amp. ... | 5.29 | 4.03 | 2.61 |
| 119941CX | LF411ACN | DIP-8 | Low offset low drift JFET input op amp. | 3.95 | 3.95 | 3.95 |
| 23018CX | LF411CN* | DIP-8 | Low offset drift JFET input op amp. | 1.21 | .90 | .66 |
| 119950CX | LF412ACN | DIP-8 | Dual JFET op-amp. | 2.85 | 2.55 | 2.19 |
| 193640CX | LF412CD | SOIC-8 | Low offset drift JFET input dual op amp. | .79 | .67 | .45 |
| 23026CX | LF412CN* | DIP-8 | Low offset drift JFET input dual op amp. | 1.03 | .76 | .56 |
| 106681CX | LF442CN | DIP-8 | Dual low power JFET input op amp. | .88 | .79 | .57 |
| 119984CX | LF444ACN | DIP-14 | Quad low power JFET input op amp. | 1.97 | 1.79 | 1.63 |
| 119992CX | LF444CN | DIP-14 | Quad low power JFET input op amp. | 1.45 | 1.09 | .79 |
| 276613CX | MAX474CSA | SOIC-8 | Dual 10MHz single supply op amp. | 5.09 | 3.86 | 2.50 |
| 266870CX | LM486N | DIP-8 | 725mW audio pwr amp. w/shutdown mode ... | 1.45 | 1.06 | .78 |
| 276541CX | MAX492CPA | DIP-8 | Dual upwr, snlgl supply rail-to-rail op amp. | 5.09 | 3.86 | 2.50 |
| 276533CX | MAX492CSA | SOIC-8 | Dual upwr, snlgl supply rail-to-rail op amp. | 5.05 | 3.75 | 2.50 |
| 277552CX | BUF634P | DIP-8 | 250mA high speed buffer | 5.45 | 5.35 | 4.83 |
| 277544CX | BUF634T | TO-220 | 250mA high speed buffer | 7.95 | 7.13 | 6.42 |
| 277579CX | BUF634U | SOIC-8 | 250mA high speed buffer | 5.45 | 5.35 | 4.83 |
| 267266CX | LMC660CM | SOIC-14 | CMOS quad operational amplifier | 1.35 | .98 | .75 |
| 143976CX | LMC660CN | DIP-14 | CMOS quad operational amplifier | 1.65 | 1.23 | .91 |
| 120926CX | LM675T | TO-220/5 | Power op amplifier | 6.95 | 5.25 | 4.39 |
| 24483CX | LM725CN | DIP-8 | Instrumentation op amplifier | 2.75 | 1.99 | 1.45 |
| 24491CX | LM733CN | DIP-14 | Differential amplifier | .99 | .89 | .79 |
| 24521CX | LM741CH | TO-5/8 | Op amplifier | 2.69 | 2.07 | 1.59 |
| 24539CX | LM741CN** | DIP-8 | Op amplifier (LJN2151) | .29 | .25 | .19 |
| 24563CX | LM747CN | DIP-14 | Dual 741 op amplifier | 4.19 | 3.85 | 3.39 |
| 277085CX | LMV824M | SOIC-14 | 5MHz quad low pwr, low volt, rail-to-rail op amp. | .99 | .74 | .54 |
| 279697CX | LM833D | SOIC-8 | Dual audio op amp. | .41 | .38 | .35 |
| 120942CX | LM833N | DIP-8 | Dual audio op amp. | .64 | .64 | .64 |
| 246668CX | LM837M | SOIC-14 | Low noise quad operational amp. | 1.02 | .80 | .75 |
| 143896CX | LM837N | DIP-14 | Low noise quad operational amp. | 1.35 | 1.12 | .82 |
| 239222CX | LT1001CN8 | DIP-8 | Precision op amplifier | 3.59 | 3.19 | 3.27 |
| 239231CX | LT1002CN | DIP-14 | Dual, matched precision op amplifier | 4.73 | 3.19 | 2.71 |
| 239214CX | LT1006CN8 | DIP-8 | Precision op-amplifier | 2.39 | 1.91 | 1.70 |
| 239273CX | LT1012CN8 | DIP-8 | Picoamp input curr, microvolt offset, low noise op amp. | 4.50 | 3.05 | 2.55 |
| 239169CX | LT1013CP | DIP-8 | Dual precision op amplifier | 1.20 | 1.01 | .90 |
| 252005CX | LT1013DD | SOIC-8 | Dual precision op amplifier | .67 | .69 | .48 |
| 239177CX | LT1014DN | DIP-14 | Quad precision op amplifier | 3.29 | 2.99 | 2.81 |
| 193682CX | LM1458M | SOIC-8 | Dual op amplifier | .26 | .22 | .13 |
| 23131CX | LM1458N* | DIP-8 | Dual op amplifier (RC4558) | .29 | .26 | .20 |
| 23270CX | LM1875T | TO-220/5 | 20-watt power audio amplifier | 1.95 | 1.55 | 1.25 |
| 245534CX | LM1877M-9 | SOIC-14 | Dual audio power amplifier | 1.41 | 1.06 | .79 |
| 23288CX | LM1877N-9 | DIP-14 | Dual power audio amplifier | 1.45 | 1.09 | .81 |
| 32897CX | TDA2002V | TO-220/5 | 8-watt audio high power amp. | 1.45 | 1.28 | 1.14 |
| 280129CX | TLE2021CP | DIP-8 | Excalibur hi speed low pwr prec op amp. | 1.09 | .91 | .70 |
| 280111CX | TLE2022CP | DIP-8 | Excalibur hi speed low pwr prec op amp. | 1.45 | 1.32 | 1.19 |
| 280102CX | TLE2024CDW | SOIC-16 | Excalibur hi speed low pwr prec op amp. | 2.85 | 2.56 | 2.29 |
| 280090CX | TLE2024CN | DIP-14 | Excalibur hi speed low pwr prec op amp. | 2.85 | 2.56 | 2.29 |
| 275848CX | OPA2131UJ | SOIC-8 | General purpose FET-input op amp. | 2.49 | 2.02 | 1.59 |
| 275830CX | OPA2134PA | DIP-8 | High-performance audio op amp. | 2.39 | 1.93 | 1.57 |
| 275821CX | OPA2134UA | SOIC-8 | High-performance audio op amp. | 2.15 | 1.74 | 1.37 |
| 279996CX | TLV2450CP | DIP-8 | Rail-to-rail I/O op amp. w/ shutdown | 1.25 | 1.01 | .76 |
| 279988CX | TLV2451CD | SOIC-8 | Rail-to-rail I/O op amp. w/ shutdown | 1.15 | .92 | .70 |
| 279970CX | TLV2451CP | DIP-8 | Rail-to-rail I/O op amp. w/ shutdown | 1.15 | .99 | .91 |
| 272209CX | TLV2454CD | SOIC-14 | Rail-to-rail I/O op amp. w/ shutdown | 1.95 | 1.76 | 1.59 |
| 279961CX | TLV2454CN | DIP-14 | Rail-to-rail I/O op amp. w/ shutdown | 1.95 | 1.76 | 1.59 |
| 279945CX | TLV2474CN | DIP-14 | 2.8MHz rail-to-rail I/O hi drive op amp w/shdwn ... | 2.05 | 1.65 | 1.59 |
| 279953CX | TLV2474IN | DIP-14 | 2.8MHz rail-to-rail I/O hi drive op amp w/shdwn ... | 2.15 | 1.75 | 1.67 |
| 245606CX | LM2902M | SOIC-14 | Low power quad op amplifier | .27 | .24 | .19 |
| 57007CX | LM2902N | DIP-14 | Low power quad op amplifier | .28 | .24 | .18 |
| 245622CX | LM2904M | SOIC-8 | Low power dual op amplifier | .25 | .23 | .20 |
| 121005CX | LM2904N | DIP-8 | Low power dual op amplifier | .22 | .20 | .19 |

*10 pcs. in Linear series IC cabinet kit, pg 23

**20 pcs. in Linear series IC cabinet kit, pg 23

Call for pricing on quantities over 100 – we carry major manufacturers.

We will special order any IC – \$100 minimum.

| TO-3 | TO-5/TO-52 | TO-92 | TO-220 | TO-252 | TO-263 | DD | DIP | SOIC & SOP | SOT-23 | SOT-223 | MW | PLCC |
|------|------------|-------|--------|--------|--------|----|-----|------------|--------|---------|----|------|
| | | | | | | | | | | | | |

Linear Op Amps (Continued)

Package (see above)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|-----------------|-------------|-----------|---|------------------------|--------|--------|
| 278141CX | THS3001CD | SOIC-8 | 420MHz hi speed curr. feedback amp. | \$5.95 | \$5.37 | \$4.83 |
| 12116CX | CA3080E | DIP-8 | Op transconductance amp. (100135) | .55 | .49 | .34 |
| 12183CX | CA3130E | DIP-8 | CMOS op amplifier | .81 | .78 | .71 |
| 12204CX | CA3140E | DIP-8 | Bi-MOS op amplifier | .59 | .55 | .51 |
| 246721CX | MC3303D | SOIC-14 | Quad op amplifier | .43 | .32 | .25 |
| 212185CX | MC3303N | DIP-14 | Quad bipolar op amplifier | .28 | .26 | .23 |
| 212193CX | MC3403N | DIP-14 | Quad bipolar op amplifier | .45 | .38 | .29 |
| 252013CX | LM3875T | TO-220/11 | 56W high perf. audio power amp. | \$7.45 5.19 | 3.99 | 3.75 |
| 126834CX | LM3876T | TO-220/11 | 40W high perf. audio amp. with mute | 4.95 | 3.95 | 3.25 |
| 192516CX | LM3886T | TO-220/11 | 68W high perf. audio amp. with mute | 5.19 | 3.95 | 2.95 |
| 246617CX | LM3900D | SOIC-14 | Quad amplifier | \$1.03 .75 | .63 | .52 |
| 24168CX | LM3900N | DIP-14 | Quad amplifier | .77 | .65 | .53 |
| 239185CX | THS4031CD | SOIC-8 | 100MHz op-amp. | 5.15 | 4.64 | 4.19 |
| 278150CX | THS4032CD | SOIC-8 | 100MHz low noise, hi speed amplifier | 6.55 | 5.89 | 5.31 |
| 278176CX | THS4082CD | SOP-8 | 175MHz low noise, hi speed amplifier | 5.79 | 5.20 | 4.68 |
| 278168CX | THS4082ID | SOP-8 | 175MHz low noise, hi speed amplifier | 5.95 | 5.37 | 4.83 |
| 279929CX | TLV4112CD | SOIC-8 | High output drive op amp. w/ shutdown ... | 1.95 | 1.58 | 1.39 |
| 29356CX | RC4136N | DIP-14 | Quad op amp. (XR4136) | .77 | .71 | .66 |
| 275741CX | OPA4137PA | DIP-14 | Low cost FET input op amp. | 1.99 | 1.61 | 1.22 |
| 121072CX | LM4250CN | DIP-8 | Programmable op amp. | 1.29 | 1.29 | 1.29 |
| 251256CX | TLC4501ACD | SOIC-8 | Precision CMOS rail-to-rail output op amp. | \$3.75 2.59 | 2.34 | 2.11 |
| 251264CX | TLC4501CD | SOIC-8 | Precision CMOS rail-to-rail output op amp. | \$3.55 2.49 | 2.27 | 2.05 |
| 251281CX | TLC4502AID | SOIC-8 | Precision CMOS rail-to-rail output op amp. | 5.59 | 5.04 | 4.54 |
| 251272CX | TLC4502ID | SOIC-8 | Precision CMOS rail-to-rail output op amp. | 5.15 | 4.63 | 4.17 |
| 254861CX | KA4558 | DIP-8 | Dual op amp. | \$2.41 .35 | .29 | .21 |
| 251150CX | MC4558CD | SOIC-8 | Wide bandwidth dual bipolar op amp. | \$2.56 .31 | .29 | .27 |
| 251125CX | MC4558CN | DIP-8 | Wide bandwidth dual bipolar op amp. | .31 | .29 | .27 |
| 267047CX | LM4864M | SOIC-8 | 725mW audio pwr amp w/ shutdown mode .. | 1.45 | 1.06 | .78 |
| 252970CX | NE5532AP | DIP-8 | Dual low noise op amp. | .69 | .58 | .47 |
| 27385CX | NE5532N* | DIP-8 | Dual low noise op amp. | .49 | .43 | .39 |
| 27406CX | NE5534 | DIP-8 | Low noise op amp. | .79 | .69 | .59 |
| 193746CX | NE5534D | SOIC-8 | Low noise op amp. | .43 | .37 | .26 |
| 266950CX | LMC6035IBP | BPA-8 | Low pwr 2.7V snl supply CMOS op amp. ... | 1.59 | 1.19 | .87 |
| 267039CX | LMC6041IN | DIP-8 | CMOS single micropower op amp. | 2.35 | 2.11 | 1.40 |
| 267063CX | LMC6442AIM | DIP-8 | Dual μ pwr, snl-supply rail-to-rail op amp. | 2.39 | 1.84 | 1.42 |
| 267119CX | LMC6462AIM | DIP-8 | Dual μ pwr, snl-supply rail-to-rail I/O CMOS op amp. | 2.75 | 2.12 | 1.60 |
| 126906CX | LMC6462AIN | DIP-8 | μ pwr rail-to-rail I/O CMOS op amp. | 2.59 | 1.99 | 1.55 |
| 126893CX | LMC6482AIM | DIP-8 | CMOS dual rail-to-rail input/output op amp. | 2.09 | 1.56 | 1.19 |
| 251168CX | LMC6482AIM | SOIC-8 | CMOS dual rail-to-rail input/output op amp. | 2.06 | 1.56 | 1.17 |
| 267127CX | LMC6482IM | SOIC-8 | CMOS dual rail-to-rail I/O op amp. | 1.69 | 1.27 | .95 |
| 267223CX | LMC6482IN | DIP-8 | CMOS dual rail-to-rail I/O op amp. | 1.89 | 1.40 | 1.04 |
| 267240CX | LMC6484AIM | SOIC-14 | CMOS quad rail-to-rail I/O op amp. | 3.49 | 2.69 | 2.05 |
| 267258CX | LMC6484IM | SOIC-14 | CMOS quad rail-to-rail I/O op amp. | 3.79 | 3.41 | 2.35 |
| 251871CX | LMC7101AIM5 | SOT-23/5 | Tiny low power op amp w/ rail-to-rail I/O .. | 1.67 | 1.25 | .93 |
| 251900CX | LMC7111AIN | DIP-8 | Tiny CMOS op amp w/ rail-to-rail I/O | 1.55 | 1.14 | .85 |
| 255257CX | AD8091AR | SOIC-8 | Low cost high speed rail-to-rail amp. | \$1.55 1.39 | 1.21 | 1.09 |
| 255231CX | AD8092ARM | SOIC-8 | Low cost high speed rail-to-rail amp. | \$2.15 1.65 | 1.32 | 1.19 |
| 255206CX | AD8510AR | SOIC-8 | Prec. low noise low input bias curr. JFET input op amp. | 2.55 | 2.30 | 2.11 |
| 279591CX | AD8515ART | SOT-23/5 | 1.8V low pwr CMOS rail-to-rail I/O op amp. | .98 | .83 | .67 |
| 192532CX | LM13700N | DIP-16 | Dual op transcon. amp. w/ diodes & buffer .. | 1.49 | 1.19 | .79 |
| 277704CX | MC33202P | DIP-8 | Low-voltage rail-to-rail op amp. | 1.15 | .97 | .78 |
| 251117CX | MC34072D | SOIC-8 | Single supply 3V-44V op amp. | .90 | .78 | .70 |
| 251061CX | MC34072P | DIP-8 | Single supply 3V-44V op amp. | .91 | .85 | .79 |

*10 pcs. in Linear series IC cabinet kit, pg 23

Linear Series

Package (see above)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|-----------------|-------------|----------|---|-------------------------|--------|------------|
| 25751CX | MF10CN | DIP-20 | General purpose dual active filter | \$2.85 | \$2.19 | \$1.69 |
| 16301CX | DS0026CN | DIP-8 | Dual mos clk. driver (5MHz)(TC426CPA) .. | 2.91 | 2.62 | 1.90 |
| 107094CX | LM34CZ | TO-92 | Prec. F temp. sensor (-40°F to +230°F) | 4.90 | 4.26 | 3.45 |
| 193480CX | LM34DM | SOIC-8 | Prec. F temp. sensor (-55°F to 300°F) | 1.49 | 1.27 | .95 |
| 155192CX | LM34DZ | TO-92 | Prec. F temp. sensor (+32°F to +212°F) | 1.99 | 1.67 | 1.23 |
| 193498CX | LM35DM | SOIC-8 | Prec. C temp. sensor (-55°C to 150°C) | 1.99 | 1.49 | 1.10 |
| 192217CX | LM35DT | TO-220/3 | Prec. C temp. sensor (-55°C to 150°C) | 2.57 | 1.92 | 1.44 |
| 107107CX | LM35CZ | TO-92 | Prec. C temp. sensor (-40°C to 110°C) | 5.79 | 4.39 | 3.19 |
| 155740CX | LM35DZ | TO-92 | Prec. C temp. sensor (0°C to +100°C) | 1.75 | 1.55 | 1.35 |
| 278361CX | TMP36FS | SOIC-8 | Low voltage temperature sensor | .95 | .78 | .63 |
| 278395CX | TMP36GS | SOIC-8 | Low voltage temperature sensor | .63 | .53 | .42 |
| 278387CX | TMP36GT9 | TO-92 | Low voltage temperature sensor | .63 | .53 | .42 |
| 282028CX | LM135H | TO-46 | Precision temperature sensor | 8.69 | 6.93 | 5.62 |
| 282061CX | LM139D | SOP-14 | Low pwr, low offset volt quad comparator .. | .95 | .80 | .65 |
| 282087CX | LM139J | CDIP-14 | Low pwr, low offset volt quad comparator .. | 2.29 | 1.74 | 1.30 |
| 239281CX | DG201BDJ | DIP-16 | Quad analog switch | 1.47 | 1.35 | 1.18 |
| 239290CX | DG202BDJ | DIP-16 | Quad analog switch | 2.30 | 2.07 | 1.94 |
| 239311CX | DG211BDJ | DIP-16 | Quad analog switch | 1.14 | 1.11 | 1.07 |
| 239329CX | DG211CJ | DIP-16 | SPST quad channel analog switch | 1.97 | 1.64 | 1.49 |
| 212126CX | LM239N | DIP-14 | Low pwr. low offset volt quad comp. | .26 | .19 | .14 |
| 245403CX | L298N | MW-15 | Dual full-bridge driver (MULTIWATT-15 pkg) .. | \$5.35 2.95 | 2.55 | 2.35 |
| 245446CX | MAX301CPE | DIP-16 | Precision dual hi speed analog switch | \$5.99 3.79 | 2.99 | 2.89 |
| 245456CX | MAX301CSE | SOIC-16 | Precision dual hi speed analog switch | \$7.19 5.99 | 3.69 | 3.45 |
| 245462CX | MAX303CPE | DIP-16 | Precision dual hi speed analog switch | \$12.55 8.15 | 7.09 | 6.45 |
| 277051CX | MAX303CSE | SOIC-16 | Precision dual hi speed analog switch | 10.65 | 8.11 | 5.79 |
| 213188CX | LM306N | DIP-8 | Differential comparator w/ strobes | .69 | .62 | .55 |
| 193543CX | LM311D | SOIC-8 | Voltage comparator | .22 | .19 | .15 |
| 23528CX | LM311N* | DIP-8 | Voltage comparator | .35 | .25 | .19 |
| 251918CX | LP311D | SOIC-8 | Voltage comparator | .76 | .64 | .52 |
| 239193CX | LP311P | DIP-8 | Differential comparator | .69 | .58 | .47 |
| 245690CX | LM319M | SOIC-14 | High speed dual comparator | .80 | .59 | .44 |
| 23632CX | LM319N | DIP-14 | Hi-speed dual comparator | .30 | .25 | .22 |
| 23721CX | LM331N | DIP-8 | Prec. volt to freq. convtr. (150ppm/°C) | 1.75 | 1.55 | 1.29 |
| 245729CX | LM334M | SOIC-8 | 3-terminal adjustable current source | 1.12 | .83 | .61 |
| 23739CX | LM334Z | TO-92 | Adjust current source | .72 | .65 | .47 |
| 120820CX | LM335AZ | TO-92 | Precision temperature sensor | .89 | .80 | .72 |
| 193560CX | LM335M | SOIC-8 | Precision temperature sensor | 1.25 | .92 | .55 |
| 23755CX | LM335Z | TO-92 | Volt mode temperature sensor | .67 | .61 | .54 |
| 193578CX | LM336M-2.5 | SOIC-8 | Precision 2.5V shunt regulator diode | .69 | .59 | .44 |
| 23771CX | LM336Z-2.5 | TO-92 | Voltage reference (2.5V) | .57 | .49 | .37 |
| 246537CX | LM339AM | SOIC-14 | Low pwr low offset volt. quad comparator .. | .37 | .32 | .24 |
| 143888CX | LM339AN | DIP-14 | Low power quad comparator | .24 | .22 | .17 |
| 193594CX | LM339M | SOIC-14 | Low pwr low offset volt quad comparator | .23 | .20 | .18 |
| 23851CX | LM339N** | DIP-14 | Quad comparator | \$2.1 .19 | .165 | .15 |
| 251977CX | LP339M | SOIC-14 | Ultra low power quad comparator | .74 | .54 | .40 |
| 121099CX | LP339N | DIP-14 | Quad low-power comparator | .44 | .34 | .26 |
| 120871CX | LM385BZ-1.2 | TO-92 | Volt. ref. diode (1.2 \pm 1.5%) | .51 | .45 | .39 |
| 120889CX | LM385BZ2.5 | TO-92 | Volt. ref. diode (2.5V \pm 1.5%) | .45 | .43 | .41 |
| 24117CX | LM385Z12 | TO-92 | Micropower volt. ref. diode (1.2V) | .45 | .41 | .39 |
| 24109CX | LM385Z-2.5 | TO-92 | Volt. ref. diode (2.5V \pm 3%) | .43 | .41 | .29 |
| 246633CX | LM392M | SOIC-8 | Low power op amp./volt. comparator | 1.53 | 1.13 | .63 |
| 120900CX | LM392N | DIP-8 | Low power op amp./volt. comparator | 1.39 | 1.24 | 1.05 |
| 246641CX | LM393AM | SOIC-8 | Low pwr low offset volt dual comparator .. | .30 | .25 | .21 |
| 212177CX | LM393AN | DIP-8 | Low pwr low offset volt dual comparator ... | .27 | .26 | .24 |
| 193631CX | LM393D | SOIC-8 | Low pwr offset voltage dual comparator | .23 | .20 | .18 |
| 24281CX | LM393N* | DIP-8 | Dual comparator | .20 | .18 | .17 |
| 277093CX | LMV393M | SOIC-8 | Low volt. general purpose dual comparator .. | .85 | .63 | .46 |
| 23000CX | LF398N | DIP-8 | Sample and hold circuit | 1.59 | 1.45 | 1.15 |
| 245454CX | DG403DY | SOIC-16 | Improved dual hi speed analog switches .. | 1.63 | 1.48 | 1.22 |

*10 pcs. in Linear series IC cabinet kit, pg 23

**20 pcs. in Linear series IC cabinet kit, pg 23

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Linear Series (Continued)

Package (see pg 26)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|--------------|---------|---|------------------------|--------|-----------------|
| 245489CX | DG405DJ | DIP-16 | Improved dual hi speed analog switches | \$2.99 | \$2.85 | \$2.74 |
| 256541CX | DG406DJ | DIP-16 | Imprvd 16-ch/dual 8-ch CMOS analog mux | \$2.89 4.15 | 4.05 | 3.89 |
| 272161CX | DG407DJ | DIP-28 | Imprvd 16-ch/dual 8-ch CMOS analog mux. | 4.89 | 4.80 | 4.39 |
| 256532CX | DG408DJ | DIP-16 | Imprvd 8-ch/dual 4-ch CMOS analog mux. | 1.79 | 1.73 | 1.68 |
| 279582CX | DG408DY | SOIC-16 | Imprvd 8-ch/dual 4-ch CMOS analog mux. | 1.93 | 1.55 | 1.27 |
| 279574CX | DG409DY | SOIC-16 | Imprvd 8-ch/dual 4-ch CMOS analog mux. | 1.55 | 1.47 | 1.27 |
| 243643CX | DG411DJ | DIP-16 | Quad precision analog switch | 1.75 | 1.48 | 1.35 |
| 243651CX | DG411DY | SOIC-16 | Quad analog switch | 1.63 | 1.58 | 1.54 |
| 256516CX | DG412DJ | DIP-16 | Improved quad SPST analog switch | 1.83 | 1.61 | 1.06 |
| 245358CX | DG412DY | SOIC-16 | Improved quad SPST analog switch | 1.51 | 1.37 | 1.16 |
| 272137CX | DG413DY | SOIC-16 | Improved quad SPST analog switch | 1.45 | 1.43 | 1.37 |
| 279540CX | DG419DJ | DIP-8 | Improved SPST/SPDT analog switch | 3.19 | 2.89 | 2.44 |
| 246561CX | DG419DY | SOIC-8 | Improved SPST/SPDT analog switch | 1.18 | 1.13 | 1.08 |
| 33347CX | TL431CLP | TO-92 | Program precision reference | .27 | .22 | .15 |
| 279558CX | DG441DJ | DIP-16 | Improved quad SPST analog switch | 1.65 | 1.50 | 1.35 |
| 256495CX | DG442DJ | DIP-16 | Improved quad SPST analog switch | 1.65 | 1.49 | 1.22 |
| 256508CX | DG442DY | SOIC-16 | Improved quad SPST analog switch | \$1.75 1.19 | 1.14 | 1.09 |
| 256487CX | DG444DJ | DIP-16 | Improved quad SPST analog switch | \$2.05 1.39 | 1.30 | 1.28 |
| 256479CX | DG444DY | SOIC-16 | Improved quad SPST analog switch | \$2.45 1.25 | 1.19 | 1.09 |
| 256452CX | DG445DJ | DIP-16 | Improved quad SPST analog switch | \$2.59 1.39 | 1.26 | 1.10 |
| 256444CX | DG445DY | SOIC-16 | Improved quad SPST analog switch | 1.37 | 1.31 | 1.24 |
| 33355CX | TL494CN | DIP-16 | Control. ckt. pulse width modulated | .79 | .69 | .59 |
| 86799CX | LM555CM | SOIC-8 | Timer (NE555D) | .29 | .25 | .22 |
| 27422CX | LM555CN** | DIP-8 | Timer (MC1455P/NE555V) | .27 | .23 | .19 |
| 246676CX | LM555CM | SOIC-8 | CMOS 555 timer | .50 | .43 | .27 |
| 277691CX | LM5567CM | SOIC-8 | Low-power tone decoder | 1.65 | 1.29 | .97 |
| 126797CX | LM555CN* | DIP-8 | CMOS 555 timer | .54 | .49 | .44 |
| 34930CX | XRL555 | DIP-8 | Micro power 555 timer | \$1.09 .41 | .37 | .34 |
| 193658CX | LM556CM | SOIC-14 | Dual 555 timer | .49 | .29 | .21 |
| 24328CX | LM556N* | DIP-14 | Dual 555 timer | .49 | .45 | .39 |
| 27457CX | NE558N | DIP-16 | Quad timer (NE558C) | .69 | .52 | .36 |
| 27473CX | NE564N | DIP-16 | High frequency phase locked loop | 1.95 | 1.49 | 1.05 |
| 24352CX | LM565N | DIP-14 | Phased locked loop | 1.59 | 1.20 | .90 |
| 193666CX | LM567CM | SOIC-8 | Tone decoder | .39 | .35 | .29 |
| 24395CX | LM567CN | DIP-8 | Tone decoder | .49 | .40 | .37 |
| 246650CX | LM567CN | DIP-8 | Tone decoder | 1.39 | 1.16 | .88 |
| 243387CX | LM568CN | DIP-8 | Low power phase-locked loop | 2.09 | 1.85 | 1.53 |
| 27490CX | NE571N | DIP-16 | Compander, subscriber | 3.29 | 2.99 | 2.69 |
| 241939CX | AD590JH | TO-52/3 | Two terminal IC temperature transducer | 5.85 | 4.55 | 3.88 |
| 115174CX | AD620AN | DIP-8 | Low cost instrument amplifier | 17.95 | 15.95 | 14.35 |
| 115182CX | AD633JN | DIP-8 | Low cost analog multiplier | \$7.95 7.09 | 7.05 | 6.99 |
| 241912CX | TC646VOA | SOIC-8 | 3-5V, PWM fan controller | 2.62 | 2.25 | 1.85 |
| 242131CX | TC648VPA | DIP-8 | 3-5V, PWM fan controller | 2.29 | 2.10 | 2.00 |
| 276509CX | MAX660CSA | SOIC-8 | CMOS monolithic voltage converter | 6.65 | 5.06 | 4.61 |
| 214041CX | TL712CP | DIP-8 | Differential comparator | 1.10 | .89 | .67 |
| 278256CX | TL714CP | SOP-8 | High speed differential comparator | 2.65 | 2.39 | 2.15 |
| 25435CX | MC846P | DIP-14 | Quad 2-input gate | 3.95 | 2.95 | 2.25 |
| 239257CX | LT1004CZ-1.2 | TO-92 | 1.2V, micropower voltage reference | .66 | .59 | .53 |
| 239265CX | LT1004CZ-2.5 | TO-92 | 2.5V, micropower voltage reference | .68 | .52 | .40 |
| 24942CX | MC1350P | DIP-8 | Video IF amp (12V operation) | 1.95 | 1.85 | 1.75 |
| 278184CX | TL1451ACN | DIP-16 | Dual pulse-width-modulation control circuit | 1.79 | 1.45 | 1.11 |
| 118578CX | MC1495L | DIP-14 | Linear four quadrant multiplier | 9.95 | 8.95 | 8.05 |
| 23211CX | LM1496N | DIP-14 | Balanced mod./demodulator (MC1496P) | .79 | .59 | .49 |
| 245542CX | LM1881M | SOIC-8 | Video synchronous separator | 2.67 | 2.04 | 1.57 |
| 107140CX | LM1881N | DIP-8 | Video synchronous separator | 2.69 | 2.05 | 1.55 |
| 243547CX | LM1894N | DIP-14 | DNR noise reduction | 2.77 | 2.14 | 1.67 |
| 34278CX | ULN2003AN* | DIP-16 | Hi-volt/curr. darl. transistor array | .39 | .35 | .29 |
| 193826CX | ULN2003AD | SOIC-16 | Hi-volt/curr. darl. transistor array | .39 | .35 | .29 |
| 34294CX | ULN2004AN | DIP-16 | Hi-volt/curr. darl. trans. array (XR2204CP) | .32 | .29 | .25 |
| 241891CX | ML2035CP | DIP-8 | Serial input prog. sine wave generator | 8.29 | 6.59 | 5.29 |
| 241883CX | ML2036CP | DIP-14 | 5V, 50kHz prog. sine wave generator | 18.39 | 15.39 | 12.85 |
| 34972CX | XR2206CP | DIP-16 | Monolithic function generator | 3.59 | 3.29 | 2.99 |
| 34999CX | XR2211N | DIP-14 | FSK demodulator/tone decoder | 1.79 | 1.59 | 1.39 |
| 280006CX | TLV2354IN | DIP-14 | LinCMOS quad low volt diff comparator | 2.89 | 2.59 | 2.33 |
| 280081CX | TLE2425CD | SOIC-8 | Precision virtual ground | 1.29 | 1.05 | .80 |
| 280022CX | TLE2426CD | SOIC-8 | Rail splitter precision virtual ground | 1.19 | .91 | .82 |

*10 pcs. in Linear series IC cabinet kit, pg 23

**20 pcs. in Linear series IC cabinet kit, pg 23

Linear Series (Continued)

Package (see pg 26)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|---------------|---------|---|------------------------|--------|-----------------|
| 280073CX | TLE2426CLP | TO-92 | Rail splitter precision virtual ground | \$1.19 | \$.91 | \$.82 |
| 34315CX | ULN2803A* | DIP-18 | Hi-volt. hi-curr. darl. transistor array | .69 | .59 | .49 |
| 245577CX | LM2901M | SOIC-14 | Low pwr low offset volt. quad comparator | .30 | .22 | .19 |
| 23296CX | LM2901N | DIP-14 | Quad comparator | .26 | .24 | .18 |
| 245614CX | LM2903M | SOIC-14 | Low power low offset volt. dual comp. | .27 | .25 | .19 |
| 23309CX | LM2903N | DIP-8 | Low power low offset volt. dual comp. | .25 | .23 | .19 |
| 123625CX | LM2907N-8 | DIP-8 | Frequency to volt converter | 1.79 | 1.56 | 1.45 |
| 23317CX | LM2907N | DIP-14 | Frequency to volt converter | 1.59 | 1.39 | 1.08 |
| 245631CX | LM2917M | SOIC-14 | Frequency to voltage converter | \$2.75 1.99 | 1.49 | 1.40 |
| 23350CX | LM2917N-8 | DIP-8 | Frequency to volt converter | 2.45 | 1.75 | 1.25 |
| 23341CX | LM2917N-14 | DIP-14 | Frequency to volt converter | 1.79 | 1.49 | 1.29 |
| 278213CX | TL3016ID | SOIC-8 | Ultra-fast, low pwr precision comparator | 1.99 | 1.62 | 1.23 |
| 12079CX | CA3046N | DIP-14 | NPN transistor array (ULN2046) | .45 | .40 | .39 |
| 12124CX | CA3081N | DIP-16 | Common emitter NPN array (ULN2081) | .69 | .59 | .54 |
| 12159CX | CA3086N | DIP-14 | Transistor array NPN (ULN2086) | .45 | .42 | .37 |
| 278230CX | TL3116CD | SOP-8 | Ultra-fast, low pwr precision comparator | 1.89 | 1.68 | 1.51 |
| 278221CX | TL3116ID | SOP-8 | Ultra-fast, low pwr precision comparator | 1.99 | 1.80 | 1.62 |
| 12247CX | CA3162E | DIP-16 | Dual slope & rate analog/digital convert | 6.95 | 5.95 | 5.25 |
| 245711CX | LM3302D | SOIC-14 | Low pwr low offset volt. quad comparator | .45 | .42 | .38 |
| 107238CX | LM3302N | DIP-14 | Low pwr low offset volt. quad comparator | .30 | .24 | 1.18 |
| 31974CX | SG3524N | DIP-16 | Regulating pulse width modulator | .45 | .41 | .39 |
| 235328CX | UC3525AN | DIP-8 | SMPS Controller | .62 | .58 | .55 |
| 280137CX | TLC3704CN | DIP-14 | Quad uPwr LinCMOS volt comparator | 1.09 | .92 | .84 |
| 243521CX | UC3842AN | DIP-8 | 30V, current mode PWM controller | .49 | .46 | .38 |
| 278926CX | UC3842D | SOIC-14 | 30V, current mode PWM controller | .87 | .70 | .53 |
| 243504CX | UC3843AN | DIP-8 | 30V, current mode PWM controller | .49 | .37 | .29 |
| 279443CX | UC3844D | SOIC-14 | 30V, current mode PWM controller | .44 | .41 | .38 |
| 243512CX | UC3844N | DIP-8 | 30V, current mode PWM controller | .48 | .42 | .34 |
| 243491CX | UC3845N | DIP-8 | 30V, current mode PWM controller | .46 | .41 | .36 |
| 279451CX | UC3846N | DIP-16 | 40V, current mode PWM controller | .97 | .82 | .65 |
| 243571CX | LM4040AIZ-10 | TO-92 | Precision micropower shunt volt. ref. | 1.95 | 1.29 | .97 |
| 243598CX | LM4040AIZ-2.5 | TO-92 | 2.5V, precision micropower volt. ref. | 1.14 | .84 | .62 |
| 243580CX | LM4040AIZ-5.0 | TO-92 | 5.0V, precision micropower volt. ref. | 1.87 | 1.56 | 1.16 |
| 243619CX | LM4040CIZ-2.5 | TO-92 | 2.5V, precision micropower volt. ref. | 1.14 | .84 | .62 |
| 243601CX | LM4040CIZ-5.0 | TO-92 | 5.0V, precision micropower volt. ref. | 1.14 | .84 | .62 |
| 25275CX | MC4044P | DIP-14 | Frequency phase detector | 9.99 | 7.49 | 5.25 |
| 29372CX | RC4151NB | DIP-8 | Volt to freq. converter (XR4151) | 1.29 | 1.19 | 1.09 |
| 277202CX | LMC6772AIM | SOIC-8 | Dual uPwr rail-to-rail input comp w/open drain output | 2.75 | 2.09 | 1.65 |
| 277173CX | LMC7211AIM | SOIC-8 | Comp. w/ rail-to rail input, push pull output | 1.65 | 1.21 | .90 |
| 277190CX | LMC7211BIM | SOIC-8 | Comp. w/ rail-to rail input, push pull output | 1.65 | 1.21 | .89 |
| 277114CX | LMC7221AIM | SOIC-8 | Comp. w/ rail-to rail input, open drain output | 1.89 | 1.42 | 1.06 |
| 51140CX | 7555IPA | DIP-8 | CMOS timer (LM555CN) | .36 | .34 | .28 |
| 51174CX | 7660CPA | DIP-8 | CMOS volt convert. (+5 to +5V) (M660AN) | \$1.25 .85 | .75 | .65 |
| 241808CX | ICL7665SCPA | DIP-8 | 2-16V voltage detector | 2.55 | 2.19 | 1.69 |
| 241816CX | ICL7673CPA | DIP-8 | Auto battery backup switch, 2.5V to 15V | 1.29 | 1.19 | .89 |
| 51879CX | 8038CCPD | DIP-14 | Precision wave form generator | 3.19 | 2.59 | 2.39 |
| 25021CX | MC14411P | DIP-24 | Bit rate frequency generator | 6.95 | 5.95 | 4.45 |
| 241841CX | MC14467 | DIP-16 | Smoke detector | 1.59 | .97 | .85 |
| 25064CX | MC14490P | DIP-16 | Hex contact bounce eliminator | 6.95 | 6.25 | 5.09 |
| 241832CX | MC145012 | DIP-16 | Smoke detector | 2.79 | 2.65 | 2.06 |
| 246713CX | MC145151DW2 | SOIC-28 | Parallel input PLL freq. synthesizer | 5.65 | 5.39 | 4.89 |
| 118586CX | MC145151P | DIP-28 | Parallel input PLL freq. synthesizer | 5.95 | 5.05 | 3.79 |

*10 pcs. in Linear series IC cabinet kit, pg 23

Digital Potentiometers

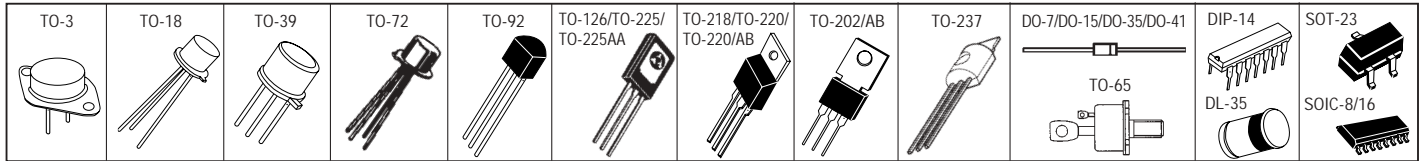
Package (see pg 26)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|--------------|--------|--|--------|--------|--------|
| 241744CX | MCP41010-I/P | DIP-8 | 10kΩ, 256 steps, SPI digital pot | \$1.59 | \$1.30 | \$1.25 |
| 241761CX | MCP41050-I/P | DIP-8 | 50kΩ, 256 steps, SPI digital pot | 1.86 | 1.75 | 1.69 |
| 241787CX | MCP41100-I/P | DIP-8 | 100kΩ, 256 steps, SPI digital pot | 1.61 | 1.41 | 1.35 |
| 241752CX | MCP42010-I/P | DIP-14 | 10kΩ, 256 steps, 2-ch, SPI digital pot | 2.39 | 1.89 | 1.78 |
| 241779CX | MCP42050-I/P | DIP-14 | 50kΩ, 256 steps, 2-ch, SPI digital pot | 2.39 | 2.00 | 1.90 |

See pages 50 – 55 for our complete
selection of Potentiometers.

Call for pricing on quantities over 100 – we carry major manufacturers.

We will special order any IC – \$100 minimum.



Transistors

Package (see above)

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Product No. | Mfr. | Pkg. | Desc. | Vceo Min. | (I_{FE} @ I_C) | 1 | 10 | 100 | 1000 |
|----------|-------------|------|--------|-------|-----------|----------------------|--------|--------|-------|------|
| 214834CX | MMBTA05 | ◆ | SOT-23 | NPN | 60 | — | \$.058 | \$.045 | \$.03 | |
| 214842CX | MMBTA06 | ◆ | SOT-23 | NPN | 80 | 100 @ .01A | \$.057 | .048 | .038 | .039 |
| 26462CX | MPSA06* | ◆ | TO-92 | NPN | 30 | 50 @ .01A | \$.046 | .042 | .039 | |
| 214851CX | MMBTA13 | ◆ | SOT-23 | NPN | 30 | 5k @ .01A | \$.057 | .039 | .026 | |
| 26489CX | MPSA13* | ◆ | TO-92 | NPN | 30 | 5k @ .01A | \$.075 | .05 | .037 | |
| 214869CX | MMBTA14 | ◆ | SOT-23 | NPN | 30 | 10k @ .01A | \$.059 | .039 | .024 | |
| 210593CX | MPSA14 | ◆ | TO-92 | NPN | 30 | 20k @ .10A | \$.05 | .035 | .025 | |
| 210681CX | MPSA18 | ◆ | TO-92 | NPN | 45 | 500 @ .001A | \$.06 | .05 | .031 | |
| 33021CX | TIP29A | ◆ | TO-220 | NPN | 60 | 15 @ 1A | .42 | .36 | .30 | .21 |
| 33030CX | TIP30A | ◆ | TO-220 | PNP | 60 | 15 @ 1A | .52 | .49 | .39 | .35 |
| 179346CX | TIP30C | FSC | TO-220 | PNP | 100 | 15 @ 1A | .35 | .32 | .27 | .23 |
| 33048CX | TIP31A* | ◆ | TO-220 | NPN | 60 | 10 @ 3A | .49 | .39 | .35 | .29 |
| 179354CX | TIP31C | FSC | TO-220 | NPN | 100 | 10 @ 3A | .42 | .37 | .30 | .21 |
| 33064CX | TIP32A* | ◆ | TO-220 | PNP | 60 | 10 @ 3A | .39 | .36 | .31 | .22 |
| 181841CX | TIP32C | ◆ | TO-220 | PNP | 100 | 10 @ 3A | .29 | .23 | .18 | .16 |
| 179371CX | TIP41C | FSC | TO-220 | NPN | 100 | 15 @ 3A | .47 | .40 | .34 | .23 |
| 33081CX | TIP41A | ◆ | TO-220 | NPN | 60 | 15 @ 3A | .40 | .36 | .31 | .26 |
| 214885CX | MMBTA42 | ◆ | SOT-23 | NPN | 300 | 40 @ .01A | \$.065 | .057 | .047 | |
| 178546CX | MPSA42 | ◆ | TO-92 | NPN | 30 | 40 @ .03A | \$.086 | .061 | .05 | |
| 33101CX | TIP42A | ◆ | TO-220 | PNP | 60 | 15 @ 3A | .49 | .42 | .35 | .29 |
| 139580CX | TIP42C | ◆ | TO-220 | PNP | 100 | 15 @ 3A | \$.45 | .42 | .38 | .24 |
| 179389CX | TIP42C | FSC | TO-220 | PNP | 100 | 15 @ 3A | .45 | .41 | .35 | .26 |
| 214906CX | MMBTA55 | ◆ | SOT-23 | PNP | 60 | 100 @ .01A | \$.056 | .038 | .024 | |
| 214914CX | MMBTA56 | ◆ | SOT-23 | PNP | 80 | 100 @ .01A | \$.085 | .058 | .04 | |
| 210606CX | MPSA56 | ◆ | TO-92 | PNP | 80 | 100 @ .10A | \$.05 | .04 | .034 | |
| 214922CX | MMBTA63 | ◆ | SOT-23 | PNP | 30 | 5k @ .01A | \$.056 | .038 | .025 | |
| 214931CX | MMBTA64 | ◆ | SOT-23 | PNP | 30 | 10k @ .01A | \$.056 | .038 | .025 | |
| 120221CX | BPW77NA | ◆ | TO-18 | NPN | 70 | — | 1.59 | 1.55 | 1.49 | 1.39 |
| 178554CX | MPSA92 | ◆ | TO-92 | PNP | 300 | 25 @ .003A | \$.067 | .048 | .043 | |
| 214957CX | MMBTA92 | ◆ | SOT-23 | PNP | 300 | 40 @ .01A | \$.06 | .05 | .045 | |
| 214033CX | MPSA93 | ◆ | TO-92 | PNP | 200 | 25 @ .03A | \$.11 | .076 | .053 | |
| 277413CX | PN100 | ◆ | TO-92 | NPN | 45 | 100 @ .15A | \$.045 | .041 | .027 | |
| 32977CX | TIP102* | ◆ | TO-220 | NPN | 100 | 1k @ 3A | .45 | .39 | .35 | .29 |
| 179240CX | TIP102 | FSC | TO-220 | NPN | 100 | 1k @ 3A | .53 | .47 | .45 | .37 |
| 32985CX | TIP106 | ◆ | TO-220 | PNP | 80 | 1k @ 3A | .59 | .54 | .49 | .34 |
| 179258CX | TIP107 | FSC | TO-220 | PNP | 100 | 1k @ 3A | .53 | .47 | .45 | .37 |
| 32993CX | TIP120* | ◆ | TO-220 | NPN | 60 | 1k @ 3A | .49 | .45 | .39 | .27 |
| 179291CX | TIP120 | FSC | TO-220 | NPN | 60 | 1k @ 3A | \$.53 | .41 | .37 | .27 |
| 120416CX | TIP122 | ◆ | TO-220 | NPN | 100 | 1k @ 3A | .38 | .32 | .22 | .17 |
| 179303CX | TIP122 | FSC | TO-220 | NPN | 100 | 1k @ 3A | .42 | .37 | .34 | .26 |
| 33013CX | TIP125 | ◆ | TO-220 | PNP | 60 | 1k @ 3A | .49 | .45 | .29 | .26 |
| 179320CX | TIP127 | FSC | TO-220 | PNP | 100 | 1k @ 3A | .48 | .42 | .29 | .25 |
| 277886CX | MJE172 | ◆ | TO-225 | PNP | 80 | 30 @ .50A | .32 | .30 | .29 | .21 |
| 277341CX | PN200 | ◆ | TO-92 | PNP | 45 | 100 @ .15A | \$.10 | .06 | .045 | |
| 254772CX | BD237 | ◆ | TO-126 | NPN | 80 | 40 @ .15A | .41 | .40 | .38 | .28 |
| 254810CX | BC337 | ◆ | TO-92 | NPN | 45 | 100 @ .10A | \$.059 | .042 | .039 | |
| 211529CX | MJE340 | ◆ | TO-225 | NPN | 300 | 30 @ .05A | .30 | .28 | .23 | .216 |
| 211537CX | MJE350 | ◆ | TO-225 | PNP | 300 | 30 @ .05A | .37 | .33 | .31 | .25 |
| 255994CX | BU406 | ◆ | TO-220 | NPN | 200 | — | 1.17 | 1.02 | .89 | .83 |
| 272031CX | BU407 | ◆ | TO-220 | NPN | 150 | — | .91 | .81 | .77 | .61 |
| 256073CX | BD438 | ◆ | TO-225 | PNP | 45 | 30 @ .01A | .39 | .36 | .34 | .27 |
| 254801CX | BC547B | ◆ | TO-92 | NPN | 45 | 330 @ .002A | \$.08 | .075 | .05 | |
| 254799CX | BC547C | ◆ | TO-92 | NPN | 45 | 600 @ .002A | \$.08 | .075 | .05 | |
| 254781CX | BC548B | ◆ | TO-92 | NPN | 30 | 110 @ .002A | \$.085 | .075 | .05 | |
| 256065CX | BD682 | ◆ | TO-225 | PNP | 100 | 750 @ 1.5A | .39 | .38 | .36 | .21 |

* Manufacturer varies FSC = Fairchild Semiconductor

* 10 pcs. in Transistor cabinet kit (see opposite page)

Transistors (Continued)

Package (see above)

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Product No. | Mfr. | Pkg. | Desc. | Vceo Min. | (I_{FE} @ I_C) | 1 | 10 | 100 | 1000 |
|----------|-------------|------|---------|-------|-----------|----------------------|--------|--------|--------|--------|
| 211545CX | MJE700 | ♦ | TO-225 | PNP | 60 | 750 @ 1.5A | \$.27 | \$.24 | \$.22 | \$.20 |
| 211553CX | MJE800 | ♦ | TO-225 | NPN | 60 | 750 @ 1.5A | \$.26 | \$.24 | \$.21 | \$.18 |
| 213920CX | MMBT918 | ♦ | SOT-23 | NPN | 15 | 20 @ .003A | \$.06 | \$.042 | \$.026 | |
| 194327CX | 2N2102 | ♦ | TO-39 | NPN | 65 | 40 @ .15A | \$.37 | \$.33 | \$.28 | \$.26 |
| 38228CX | 2N219A | ♦ | TO-39 | NPN | 40 | 100 @ .15A | \$.41 | \$.37 | \$.31 | \$.28 |
| 94941CX | MMBT2222 | ♦ | SOT-23 | NPN | 30 | 100 @ .15A | \$.22 | \$.045 | \$.034 | \$.028 |
| 26446CX | MPQ2222 | ♦ | DIP-14 | NPN | 40 | 100 @ .15A | \$.25 | 1.85 | 1.49 | 1.46 |
| 28628CX | PN2222** | ♦ | TO-92 | NPN | 30 | 100 @ .15A | \$.065 | \$.041 | \$.025 | |
| 213938CX | MMBT2222A | ♦ | SOT-23 | NPN | 40 | 100 @ .15A | \$.045 | \$.035 | \$.019 | |
| 213997CX | MMPQ2222A | ♦ | SOIC-16 | NPN | 40 | 100 @ .15A | \$.90 | \$.79 | \$.75 | \$.47 |
| 210673CX | MPS2222A | ♦ | TO-92 | NPN | 40 | 40 @ .50A | \$.06 | \$.049 | \$.045 | \$.034 |
| 178511CX | PN2222A | ♦ | TO-92 | NPN | 40 | 100 @ .15A | \$.12 | \$.08 | \$.04 | |
| 38236CX | 2N2222A* | ♦ | TO-18 | NPN | 40 | 100 @ .15A | \$.39 | \$.35 | \$.29 | \$.25 |
| 214658CX | MMBT2369 | ♦ | SOT-23 | PNP | 25 | 60 @ .05A | \$.09 | \$.042 | \$.026 | |
| 213946CX | MMBT2369A | ♦ | SOT-23 | NPN | 15 | 40 @ .01A | \$.05 | \$.042 | \$.026 | |
| 26526CX | MPS2369 | ♦ | TO-92 | NPN | 15 | 20 @ .10A | \$.29 | \$.25 | \$.18 | \$.12 |
| 211334CX | MPS2369A | ♦ | TO-92 | NPN | 15 | 20 @ .10A | \$.09 | \$.08 | \$.07 | |
| 194378CX | 2N2905A | ♦ | TO-39 | PNP | 60 | 100 @ .15A | \$.45 | \$.41 | \$.39 | \$.31 |
| 94959CX | MMBT2907 | ♦ | SOT-23 | PNP | 40 | 100 @ .15A | \$.22 | \$.20 | \$.16 | \$.12 |
| 26454CX | MPQ2907 | ♦ | DIP-14 | PNP | 40 | 100 @ .15A | \$.21 | 1.85 | 1.35 | \$.99 |
| 28644CX | PN2907** | ♦ | TO-92 | PNP | 40 | 100 @ .15A | \$.125 | \$.09 | \$.045 | |
| 213954CX | MMBT2907A | ♦ | SOT-23 | PNP | 60 | 100 @ .01A | \$.09 | \$.07 | \$.049 | |
| 214009CX | MMPQ2907A | ♦ | SOIC-16 | PNP | 60 | 100 @ .01A | \$.99 | \$.79 | \$.65 | \$.45 |
| 211342CX | MPS2907A | ♦ | TO-92 | PNP | 60 | 100 @ .15A | \$.045 | \$.034 | \$.026 | |
| 178520CX | PN2907A | ♦ | TO-92 | PNP | 60 | 100 @ .15A | \$.07 | \$.046 | \$.033 | |
| 38279CX | 2N2907A* | ♦ | TO-18 | PNP | 60 | 100 @ .15A | \$.36 | \$.34 | \$.31 | \$.25 |
| 211377CX | TIP2955 | ♦ | TO-218 | PNP | 60 | 5 @ .001A | 1.05 | \$.89 | \$.79 | \$.75 |
| 211502CX | MJ2955A | ♦ | TO-3 | NPN | 60 | 20 @ 4A | \$.69 | \$.62 | \$.56 | \$.51 |
| 25831CX | MJE2955T | ♦ | TO-220 | PNP | 60 | 20 @ 4A | \$.51 | \$.44 | \$.39 | \$.37 |
| 38295CX | 2N3053* | ♦ | TO-39 | NPN | 40 | 25 @ .15A | \$.47 | \$.43 | \$.40 | \$.37 |
| 211385CX | TIP3055 | ♦ | TO-218 | NPN | 60 | 5 @ .001A | 1.10 | \$.95 | \$.85 | \$.79 |
| 38308CX | 2N3055* | ♦ | TO-3 | NPN | 60 | 15 @ 10A | \$.95 | \$.85 | \$.71 | \$.57 |
| 211406CX | 2N3055A | ♦ | TO-3 | NPN | 60 | 20 @ 4A | 1.20 | 1.16 | 1.11 | 1.01 |
| 25857CX | MJE3055T | ♦ | TO-220 | NPN | 60 | 20 @ 4A | \$.48 | \$.46 | \$.41 | \$.37 |
| 194415CX | 2N3439 | ♦ | TO-39 | NPN | 350 | 40 @ .02A | \$.52 | \$.47 | \$.41 | \$.34 |
| 194423CX | 2N3440 | ♦ | TO-39 | NPN | 250 | 40 @ .02A | \$.60 | \$.51 | \$.46 | \$.41 |
| 211561CX | MPS3646 | ♦ | TO-92 | NPN | 15 | 30 @ .003A | \$.056 | \$.051 | \$.046 | |
| 194458CX | 2N3700 | ♦ | TO-18 | NPN | 80 | 100 @ .15A | \$.54 | \$.49 | \$.39 | \$.35 |
| 209242CX | 2N3771 | ♦ | TO-3 | NPN | 40 | 15 @ 15A | 1.89 | 1.75 | 1.55 | 1.39 |
| 38324CX | 2N3772 | ♦ | TO-3 | NPN | 40 | 15 @ 10A | 1.49 | 1.35 | 1.19 | \$.99 |
| 140151CX | 2N3773 | ♦ | TO-3 | NPN | 140 | 15 @ 8A | 2.35 | 2.19 | 1.85 | 1.65 |
| 62279CX | 2N3903 | ♦ | TO-92 | NPN | 40 | 50 @ .01A | \$.045 | \$.039 | \$.025 | |
| 94967CX | MMBT3904 | ♦ | SOT-23 | NPN | 40 | 100 @ .01A | \$.066 | \$.05 | \$.032 | |
| 211351CX | MPS3904 | ♦ | TO-92 | NPN | 40 | 100 @ .001A | \$.15 | \$.11 | \$.078 | |
| 38359CX | 2N3904** | ♦ | TO-92 | NPN | 40 | 100 @ .01A | \$.075 | \$.058 | \$.035 | |
| 178597CX | 2N3904 | FSC | TO-92 | NPN | 40 | 100 @ .01A | \$.09 | \$.06 | \$.048 | |
| 62287CX | 2N3905 | ♦ | TO-92 | PNP | 40 | 50 @ .01A | \$.054 | \$.037 | \$.024 | |
| 94975CX | MMBT3906 | ♦ | SOT-23 | PNP | 40 | 100 @ .01A | \$.045 | \$.035 | \$.024 | |
| 214017CX | MMPQ3906 | ♦ | SOIC-16 | PNP | 40 | 75 @ .01A | \$.55 | \$.50 | \$.46 | \$.42 |
| 38375CX | 2N3906** | ♦ | TO-92 | PNP | 40 | 100 @ .01A | \$.05 | \$.04 | \$.03 | |
| 178618CX | 2N3906 | FSC | TO-92 | PNP | 40 | 100 @ .01A | \$.09 | \$.08 | \$.07 | |
| 194466CX | 2N4033 | ♦ | TO-39 | PNP | 80 | 100 @ .10A | \$.45 | \$.40 | \$.32 | \$.24 |
| 38404CX | 2N4123 | ♦ | TO-92 | NPN | 30 | 25 @ .05A | \$.17 | \$.11 | \$.08 | |
| 214674CX | MMBT4124 | ♦ | SOT-23 | NPN | 25 | 60 @ .05A | \$.055 | \$.037 | \$.024 | |
| 62295CX | 2N4124 | ♦ | TO-92 | NPN | 25 | 60 @ .05A | \$.044 | \$.034 | \$.025 | |

* Manufacturer varies FSC = Fairchild Semiconductor

* 10 pcs. in Transistor cabinet kit ** 100 pcs. in Transistor cabinet kit (see right)

Call for pricing on quantities over 5000 – we carry major manufacturers.

Transistors (Continued)



Package (see pg 28)

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Product No. | Mfr. | Pkg. | Desc. | V _{ceo} Min. | (h _{FE} @ I _C) | 1 | 10 | 100 | 1000 |
|----------|-------------|------|---------|---------|-----------------------|-------------------------------------|-------|------------------------|-----------|--------------|
| 214682CX | MMBT4126 | ♦ | SOT-23 | PNP | 25 | 60 @ .05A | ..... | * \$0.066 | * \$0.046 | \$.03 |
| 214623CX | 2N4126 | ♦ | TO-92 | PNP | 25 | 60 @ .05A | ..... | * .054 | .037 | .024 |
| 253411CX | 2N4400 | ♦ | TO-92 | NPN | 40 | 50 @ .15A | ..... | * .042 | .03 | .027 |
| 214703CX | MMBT4401 | ♦ | SOT-23 | NPN | 40 | 80 @ .01A | ..... | * .057 | .038 | .029 |
| 38421CX | 2N4401 | ♦ | TO-92 | NPN | 40 | 100 @ .15A | ..... | * .07 | .06 | .05 |
| 214720CX | MMBT4403 | ♦ | SOT-23 | PNP | 40 | 60 @ .001A | ..... | * .045 | .04 | .032 |
| 38447CX | 2N4403 | ♦ | TO-92 | PNP | 40 | 100 @ .15A | ..... | * .08 | .07 | .05 |
| 211511CX | 2N4410 | ♦ | TO-92 | NPN | 80 | 60 @ .01A | ..... | * .07 | .055 | .043 |
| 277755CX | MJ4502 | ♦ | TO-3 | PNP | 90 | 25 @ 7.5A | ..... | * 2.89 | 2.10 | 2.04 |
| 211449CX | 2N4918 | ♦ | TO-225 | PNP | 40 | 30 @ .50A | ..... | * \$.30 .27 | .24 | .22 |
| 211457CX | 2N4919 | ♦ | TO-225 | PNP | 60 | 30 @ .50A | ..... | * \$.32 .27 | .24 | .20 |
| 211465CX | 2N4920 | ♦ | TO-225 | PNP | 80 | 30 @ .50A | ..... | * .33 | .315 | .30 |
| 211473CX | 2N4921 | ♦ | TO-225 | NPN | 40 | 30 @ .50A | ..... | * .41 | .36 | .32 |
| 211481CX | 2N4922 | ♦ | TO-225 | NPN | 60 | 30 @ .50A | ..... | * .35 | .33 | .29 |
| 211490CX | 2N4923 | ♦ | TO-225 | NPN | 80 | 30 @ .50A | ..... | * .35 | .31 | .26 |
| 213962CX | MMBT5087 | ♦ | SOT-23 | PNP | 50 | 250 @ .01A | ..... | * .049 | .034 | .019 |
| 210631CX | 2N5087 | ♦ | TO-92 | PNP | 50 | 250 @ .10A | ..... | * .075 | .038 | .028 |
| 213971CX | MMBT5088 | ♦ | SOT-23 | NPN | 30 | 300 @ .01A | ..... | * .061 | .04 | .023 |
| 62316CX | 2N5088 | ♦ | TO-92 | NPN | 30 | 300 @ .10A | ..... | * .044 | .034 | .025 |
| 214746CX | MMBT5089 | ♦ | SOT-23 | NPN | 25 | 400 @ .01A | ..... | * .039 | .027 | .017 |
| 62324CX | 2N5089 | ♦ | TO-92 | NPN | 25 | 400 @ .10A | ..... | * .055 | .038 | .027 |
| 38480CX | PN5179 | ♦ | TO-92 | NPN | 15 | 25 @ .003A | ..... | * .15 | .09 | .06 |
| 140373CX | 2N5179 | ♦ | TO-72 | NPN | 12 | 25 @ .003A | ..... | * .65 | .55 | .49 |
| 209251CX | 2N5191 | ♦ | TO-225 | NPN | 60 | 25 @ 1.5A | ..... | * .41 | .36 | .30 |
| 38498CX | 2N5192 | ♦ | TO-225 | NPN | 80 | 20 @ 1.5A | ..... | * .35 | .31 | .29 |
| 209269CX | 2N5194 | ♦ | TO-225 | PNP | 60 | 25 @ 1.5A | ..... | * .33 | .31 | .30 |
| 38501CX | 2N5195 | ♦ | TO-225 | PNP | 80 | 20 @ 1.5A | ..... | * .43 | .39 | .37 |
| 253930CX | 2N5400 | ♦ | TO-92 | PNP | 120 | 40 @ .010A | ..... | * .066 | .058 | .042 |
| 214754CX | MMBT5401 | ♦ | SOT-23 | PNP | 150 | 40 @ .001A | ..... | * .053 | .039 | .029 |
| 210649CX | 2N5401 | ♦ | TO-92 | PNP | 150 | 60 @ .01A | ..... | * .067 | .053 | .042 |
| 214762CX | MMBT5550 | ♦ | SOT-23 | NPN | 140 | 60 @ .01A | ..... | * .024 | .021 | .019 |
| 253569CX | 2N5550 | ♦ | TO-92 | NPN | 140 | 60 @ .010A | ..... | * .23 | .15 | .054 |
| 214771CX | MMBT5551 | ♦ | SOT-23 | NPN | 140 | 80 @ .01A | ..... | * .063 | .045 | .039 |
| 210657CX | 2N5551 | ♦ | TO-92 | NPN | 160 | 80 @ .01A | ..... | * .15 | .14 | .105 |
| 209277CX | 2N5657 | ♦ | TO-126 | NPN | 350 | 30 @ .10A | ..... | * \$.37 .30 | .27 | .22 |
| 253438CX | 2N5884 | ♦ | TO-3 | PNP | 80 | 4 @ 25A | ..... | * 2.35 | 2.18 | 1.63 |
| 254764CX | 2N5886 | ♦ | TO-3 | NPN | 80 | 20 @ 10A | ..... | * 2.25 | 2.09 | 1.59 |
| 194571CX | 2N6042 | ♦ | TO-220 | PNP | 100 | 1k @ 3A | ..... | * .59 | .47 | .35 |
| 194589CX | 2N6045 | ♦ | TO-220 | NPN | 100 | 1k @ 3A | ..... | * \$.52 .44 | .40 | .34 |
| 194597CX | 2N6052 | ♦ | TO-3 | PNP | 100 | 750 @ 6A | ..... | * 1.63 | 1.47 | 1.32 |
| 194600CX | 2N6059 | ♦ | TO-3 | NPN | 100 | 750 @ 6A | ..... | * 1.59 | 1.55 | 1.36 |
| 255011CX | 2N6292 | ♦ | TO-220 | NPN | 70 | 30 @ 2A | ..... | * .57 | .52 | .48 |
| 213989CX | MMBT6427 | ♦ | SOT-23 | NPN | 40 | 10k @ .01A | ..... | * .063 | .057 | .028 |
| 255003CX | 2N6427 | ♦ | TO-92 | NPN | 40 | 10k @ .01A | ..... | * .33 | .22 | .15 |
| 194618CX | 2N6547 | ♦ | TO-3 | NPN | 400 | 12 @ 5A | ..... | * 3.45 | 2.96 | 2.85 |
| 194626CX | 2N6678 | ♦ | TO-3 | NPN | 400 | 8 @ 15A | ..... | * 6.79 | 6.15 | 5.75 |
| 214025CX | MMPQ6700 | ♦ | SOIC-16 | NPN/PNP | 40 | 70 @ .01A | ..... | * 1.49 | 1.35 | 1.15 |
| 140134CX | 2N6725 | ♦ | TO-237 | NPN | 50 | 25k @ .20A | ..... | * .55 | .45 | .36 |
| 277771CX | MJE13005 | ♦ | TO-220 | NPN | 400 | 8 @ 2A | ..... | * .80 | .71 | .54 |
| 277798CX | MJE15029 | ♦ | TO-220 | PNP | 120 | 40 @ 2A | ..... | * .81 | .75 | .69 |
| 277851CX | MJE15031 | ♦ | TO-220 | PNP | 150 | 40 @ 2A | ..... | * .79 | .69 | .65 |

♦ Manufacturer varies *10 pcs. in Transistor cabinet kit, below

Transistor Assortment Cabinet Kit

Includes:

20-drawer component cabinet (81701CX),
20 clear plastic drawers (85454CX),
20 clear dividers (85446CX), pg 108 and
30 adhesive labels for drawers to identify parts in kit

10 each: 2N2222A, 2N2907A, 2N3053, 2N3055, 2N4401,
2N4403, 2N5951, 2N7000, MJE3055T, MPF102,
MPSA06, MPSA13, TIP31A, TIP32A, TIP102, TIP120

100 each: 2N3904, 2N3906, PN2222, PN2907



SAVE \$7



| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|---|------------|---------|---------|
| 82597CX | 560 pcs. (20 types) NPN, PNP transistor kit | 5.1 | \$82.95 | \$74.65 |
| 130376CX | Refill for 82597CX (560 pcs.) | 0.4 | 69.95 | 62.95 |



J-FETS

Package (see pg 28)

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Product No. | Mfr. | Pkg. | Desc. | BV _{GS} @ I _{GU} A | Loss (mA) @ V _{DS} | 1 | 10 | 100 | 1000 |
|----------|-------------|------|-------|------------|--------------------------------------|-----------------------------|-------------------------|--------|-------------|------------|
| 26403CX | MPF102* | ♦ | TO-92 | N-Ch25 @ 1 | 20 @ 15 | ..... | * \$0.155 | \$0.11 | \$0.08 | |
| 211393CX | J111 | ♦ | TO-92 | N-Ch35 @ 1 | 20 @ 15 | ..... | * \$.29 .095 | .086 | .078 | |
| 140450CX | J112 | ♦ | TO-92 | N-Ch35 @ 1 | 5 @ 15 | ..... | * .29 | .22 | .16 | .11 |
| 140142CX | J176 | ♦ | TO-92 | P-Ch30 @ 1 | 2 @ 25 | ..... | * .33 | .29 | .21 | .17 |
| 211414CX | J177 | ♦ | TO-92 | P-Ch30 @ 1 | 20 @ 15 | ..... | * .29 | .22 | .16 | .11 |
| 210622CX | 2N3819 | ♦ | TO-92 | N-Ch25 @ 1 | 20 @ 15 | ..... | * .085 | .059 | .055 | |
| 38341CX | 2N3823 | ♦ | TO-72 | N-Ch30 @ 1 | 20 @ 15 | ..... | * 1.35 | 1.19 | 1.05 | .99 |
| 38527CX | 2N5951* | ♦ | TO-92 | N-Ch30 @ 1 | 13 @ 15 | ..... | * \$.99 .69 | .64 | .44 | .39 |

♦ Manufacturer varies *10 pcs. in Transistor cabinet kit, below left

N-Channel/P-Channel MOSFETs

Package (see pg 28)

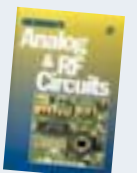
* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Product No. | Mfr. | Pkg. | Desc. | Min. On-St. DS Current | 1 | 10 | 100 | 1000 |
|----------|-------------|------|--------|-----------|------------------------|-------|-------------------------|------------|-------------|
| 256014CX | BSS138 | ♦ | SOT-23 | N-Ch | 50V 0.2A | ..... | * \$0.11 | \$0.075 | \$0.055 |
| 256031CX | BS170 | ♦ | TO-92 | N-Ch | 60V — | ..... | * .10 | .07 | .06 |
| 256057CX | BS250 | ♦ | TO-92 | P-Ch | 45V — | ..... | * .23 | .21 | .20 |
| 209234CX | IRF510 | ♦ | TO-220 | N-Ch | 100V 5.6A | ..... | * .69 | .59 | .55 |
| 209226CX | IRF520 | ♦ | TO-220 | N-Ch | 100V 10.0A | ..... | * .55 | .48 | .45 |
| 209058CX | IRL520L | ♦ | TO-220 | N-Ch | 100V 10.0A | ..... | * .77 | .55 | .46 |
| 210500CX | IRF530 | ♦ | TO-220 | N-Ch | 100V 14.0A | ..... | * .66 | .57 | .52 |
| 210518CX | IRF540 | ♦ | TO-220 | N-Ch | 100V 27.0A | ..... | * 1.05 | .95 | .89 |
| 210526CX | IRF620 | ♦ | TO-220 | N-Ch | 200V 6.0A | ..... | * .45 | .42 | .35 |
| 210534CX | IRF630 | ♦ | TO-220 | N-Ch | 200V 9.0A | ..... | * .75 | .65 | .58 |
| 210542CX | IRF640 | ♦ | TO-220 | N-Ch | 200V 18.0A | ..... | * \$.99 .69 | .65 | .57 |
| 210551CX | IRF730 | ♦ | TO-220 | N-Ch | 400V 5.5A | ..... | * .89 | .75 | .67 |
| 210569CX | IRF740 | ♦ | TO-220 | N-Ch | 400V 10.0A | ..... | * 1.25 | 1.10 | .89 |
| 210577CX | IRF820 | ♦ | TO-220 | N-Ch | 500V 4.0A | ..... | * .65 | .60 | .55 |
| 210585CX | IRF830 | ♦ | TO-220 | N-Ch | 500V 4.5A | ..... | * .77 | .70 | .62 |
| 184719CX | IRF840 | ♦ | TO-220 | N-Ch | 500V 8.0A | ..... | * 1.49 | 1.29 | .99 |
| 279460CX | VN2222LL | ♦ | TO-92 | N-Ch | 60V .75A | ..... | * .23 | .20 | .16 |
| 279486CX | VN2401L | ♦ | TO-92 | N-Ch | 240V 1.0A | ..... | * .39 | .32 | .24 |
| 279478CX | VN2406L | ♦ | TO-92 | N-Ch | 240V 1.0A | ..... | * .44 | .35 | .27 |
| 255020CX | SI4110DY | ♦ | SOIC-8 | N-Ch | 30V 20A | ..... | * .89 | .73 | .52 |
| 255038CX | SI4420DY | ♦ | SOIC-8 | N-Ch | 30V 30A | ..... | * \$.99 1.79 | 1.75 | 1.69 |
| 255046CX | SI4435DY | ♦ | SOIC-8 | P-Ch | -30V -40A | ..... | * .85 | .71 | .52 |
| 255054CX | SI4463DY | ♦ | SOIC-8 | P-Ch | -20V -30A | ..... | * 1.66 | 1.55 | 1.49 |
| 255062CX | SI4467DY | ♦ | SOIC-8 | P-Ch | -12V -20A | ..... | * 1.59 | 1.45 | 1.24 |
| 255071CX | SI4884DY | ♦ | SOIC-8 | N-Ch | 30V 40A | ..... | * \$.15 .59 | .57 | .55 |
| 255089CX | SI4963DY | ♦ | SOIC-8 | Dual P-Ch | -20V -20A | ..... | * 1.45 | 1.32 | 1.19 |
| 253948CX | 2N5457 | ♦ | TO-92 | N-Ch | -25V — | ..... | * .20 | .18 | .126 |
| 253921CX | 2N5458 | ♦ | TO-92 | N-Ch | 25V 0.1A | ..... | * .29 | .23 | .18 |
| 253913CX | 2N5460 | ♦ | TO-92 | P-Ch | 40V — | ..... | * .34 | .28 | .22 |
| 253905CX | 2N5461 | ♦ | TO-92 | P-Ch | 40V — | ..... | * .26 | .19 | .16 |
| 253892CX | 2N5462 | ♦ | TO-92 | P-Ch | 40V — | ..... | * .089 | .081 | .073 |
| 253884CX | 2N5484 | ♦ | TO-92 | N-Ch | -25V — | ..... | * .13 | .09 | .052 |
| 253585CX | 2N5485 | ♦ | TO-92 | N-Ch | -25V — | ..... | * .23 | .20 | .18 |
| 253577CX | 2N5486 | ♦ | TO-92 | N-Ch | -25V — | ..... | * .18 | .15 | .11 |
| 253542CX | 2N5639 | ♦ | TO-92 | N-Ch | 30V 0.05A | ..... | * .20 | .175 | .125 |
| 178669CX | 2N7000* | FSC | TO-92 | N-Ch | 60V 0.2A | ..... | * .23 | .19 | .13 |
| 119423CX | 2N7000 | ♦ | TO-92 | N-Ch | 60V 0.3A | ..... | * .11 | .10 | .09 |
| 140169CX | 2N7002 | ♦ | SOT-23 | N-Ch | 60V 0.5A | ..... | * .08 | .06 | .033 |

♦ Manufacturer varies FSC = Fairchild Semiconductor *10 pcs. in Transistor cabinet kit, below left

Analog and RF Circuits

Newnes Publishing The author, one of the leading analog and RF engineers, uses illustrations and examples rather than mathematical theory to present a wealth of ideas and tips based on his experience. Essential reading for anyone designing analog circuits. Topics include RF amplifiers, oscillator design and behavior, waveform analysis, opto-electronics, filters, and op-amps. (299 pages, 1998)



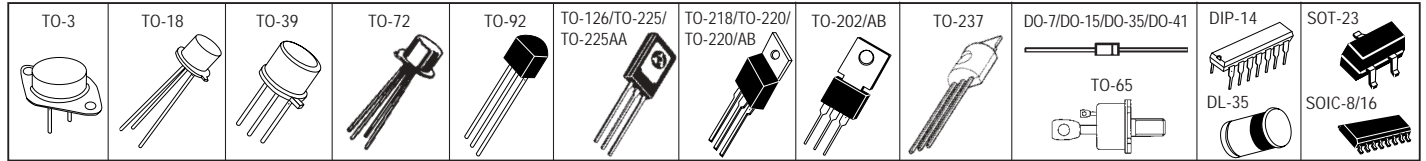
| Part No. | Description | Size | Wt. (lbs.) | Price |
|----------|------------------------|-------------|------------|----------------|
| 200150CX | Analog and RF Circuits | 7.4" x 9.2" | 1.1 | \$49.95 |

SALE

Diodes – Transient Voltage Suppressors

Color Code Legend
New Sale Qty Save Closeout

Call for pricing on quantities over 5000 – we carry major manufacturers.



Diodes

SALE

Package (see above)

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Product No. | Mfr. | Pkg. | Description | 1 | 10 | 100 | 1000 |
|----------|-------------|------|--------|--------------------------------|----------|---------|---------|------|
| 140185CX | BAS16 | ◆ | SOT-23 | 70PRV, 1A (Switching) | * \$.09 | \$.065 | \$.027 | |
| 254852CX | BAT54 | ◆ | SOT-23 | 30PRV, 0.6A (Schottky) | * .16 | .125 | .09 | |
| 254844CX | BAT54A | ◆ | SOT-23 | 30PRV, 0.6A (Schottky) | * .08 | .05 | .043 | |
| 254836CX | BAT54C | ◆ | SOT-23 | 30PRV, 0.6A (Schottky) | * .08 | .05 | .043 | |
| 254828CX | BAT54S | ◆ | SOT-23 | 30PRV, 0.6A (Schottky) | .21 | .19 | .16 | .11 |
| 140177CX | BAW56 | ◆ | SOT-23 | 70PRV, 0.25A (Switching) | * .058 | .034 | .022 | |
| 140206CX | BAV70 | ◆ | SOT-23 | 70PRV, 0.25A (Switching) | * .06 | .035 | .021 | |
| 140193CX | BAV99 | ◆ | SOT-23 | 70PRV, 1A (Switching) | * .06 | .05 | .043 | |
| 35941CX | 1N270* | ◆ | DO-7 | 80 PRV (Germanium) | .75 | .69 | .59 | .49 |
| 179207CX | 1N914 | VSH | DO-35 | 100 PRV (Switching) | * .05 | .025 | .014 | |
| 36311CX | 1N914** | ◆ | DO-35 | 75 PRV, .01A (Switching) | * .022 | .018 | .014 | |
| 35967CX | 1N3600* | ◆ | DO-35 | 50 PRV, .20A (Switching) | * .045 | .029 | .019 | |
| 179215CX | 1N4148 | VSH | DO-35 | 100 PRV (Switching) | * .04 | .03 | .025 | |
| 36038CX | 1N4148** | ◆ | DO-35 | 75 PRV, .01A (Switching) | * .036 | .027 | .023 | |
| 94908CX | LL4148 | ◆ | DL-35 | 75 PRV @ 50µA, 10mA | † | † | .028 | .016 |
| 151247CX | 1N4148T | ◆ | DO-35 | 75 PRV, .01A (Switching) | # | # | # | .02 |

◆ Manufacturer varies VSH = Vishay

† Prepackaged: order in increments of 100

* 10 pcs. in Diode/rectifier cabinet kit, below right

Taped-ammo style: order in increments of 1000

** 100 pcs. in Diode/rectifier cabinet kit, below right

Zener Diodes

New Lower Prices

Package (see above)

Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Product No. | Mfr. | Pkg. | V _{Znom} | Pwr Dissipation | 10 | 100 | 500 | 1000 |
|----------|-------------|------|-------|-------------------|-----------------|--------|---------|---------|---------|
| 36290CX | 1N751A* | ◆ | DO-35 | 5.1V, | 0.5W | \$.06 | \$.052 | \$.045 | \$.022 |
| 178765CX | 1N4730A | ◆ | DO-41 | 3.9V, | 1W | .069 | .055 | .045 | .029 |
| 178773CX | 1N4732A | VSH | DO-41 | 4.7V, | 1W | .07 | .055 | .045 | .035 |
| 36089CX | 1N4732A | ◆ | DO-41 | 4.7V, | 1W | .039 | .036 | .032 | .029 |
| 178781CX | 1N4733A | VSH | DO-41 | 5.1V, | 1W | .09 | .06 | .05 | .04 |
| 36097CX | 1N4733A* | ◆ | DO-41 | 5.1V, | 1W | .08 | .065 | .042 | .026 |
| 178790CX | 1N4734A | VSH | DO-41 | 5.6V, | 1W | .066 | .052 | .045 | .039 |
| 36118CX | 1N4734A | ◆ | DO-41 | 5.6V, | 1W | .064 | .05 | .042 | .035 |
| 178802CX | 1N4735A | VSH | DO-41 | 6.2V, | 1W | .066 | .052 | .045 | .039 |
| 36126CX | 1N4735A* | ◆ | DO-41 | 6.2V, | 1W | .061 | .049 | .041 | .035 |
| 178811CX | 1N4737A | ◆ | DO-41 | 7.5V, | 1W | .066 | .052 | .045 | .039 |
| 178829CX | 1N4738A | ◆ | DO-41 | 8.2V, | 1W | .066 | .042 | .034 | .027 |
| 178837CX | 1N4739A | ◆ | DO-41 | 9.1V, | 1W | .063 | .042 | .035 | .032 |
| 178845CX | 1N4740A | ◆ | DO-41 | 10V, | 1W | .063 | .042 | .035 | .032 |
| 178853CX | 1N4742A | VSH | DO-41 | 12V, | 1W | .063 | .042 | .035 | .032 |
| 36169CX | 1N4742A* | ◆ | DO-41 | 12V, | 1W | .07 | .055 | .045 | .032 |
| 178861CX | 1N4744A | VSH | DO-41 | 15V, | 1W | .063 | .042 | .039 | .036 |
| 36185CX | 1N4744A | ◆ | DO-41 | 15V, | 1W | .07 | .055 | .045 | .032 |
| 178888CX | 1N4747A | ◆ | DO-41 | 20V, | 1W | .099 | .074 | .061 | .046 |
| 178896CX | 1N4748A | ◆ | DO-41 | 22V, | 1W | .063 | .042 | .035 | .032 |
| 178909CX | 1N4749A | ◆ | DO-41 | 24V, | 1W | .063 | .042 | .039 | .035 |
| 183450CX | 1N4750A | ◆ | DO-41 | 27V, | 1W | .09 | .075 | .062 | .049 |
| 179004CX | 1N5225B | ◆ | DO-35 | 3.0V, | 0.5W | .033 | .025 | .017 | .016 |
| 179021CX | 1N5229B | ◆ | DO-35 | 4.3V, | 0.5W | .05 | .044 | .036 | .027 |
| 179039CX | 1N5230B | ◆ | DO-35 | 4.7V, | 0.5W | .04 | .035 | .03 | .027 |
| 179047CX | 1N5231B | ◆ | DO-35 | 5.1V, | 0.5W | .04 | .035 | .03 | .027 |
| 179055CX | 1N5232B | ◆ | DO-35 | 5.6V, | 0.5W | .03 | .027 | .024 | .022 |
| 179063CX | 1N5234B | ◆ | DO-35 | 6.2V, | 0.5W | .04 | .035 | .029 | .025 |
| 179098CX | 1N5242B | ◆ | DO-35 | 12V, | 0.5W | .04 | .034 | .027 | .02 |
| 179135CX | 1N5250B | ◆ | DO-35 | 20V, | 0.5W | .04 | .035 | .029 | .025 |

◆ Manufacturer varies VSH = Vishay

* 10 pcs. in Diode/rectifier cabinet kit, right

Transient Voltage Suppressors

Package (see above)

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Product No. | Mfr. | Pkg. | Min. Brkdown Volt. (V _{br}) | Stand-Off Voltage | 1 | 10 | 100 | 1000 |
|----------|-------------|------|-------|---------------------------------------|-------------------|--------|--------|--------|--------|
| 254879CX | SA6.0A | ◆ | DO-15 | 6.67 | 6.0 | \$.23 | \$.22 | \$.20 | \$.14 |
| 256663CX | P6KE6.8A | ◆ | DO-15 | 6.45 | 5.8 | .19 | .18 | .16 | .16 |
| 256647CX | P6KE7.5A | ◆ | DO-15 | 7.13 | 6.4 | .19 | .17 | .14 | .13 |
| 256639CX | P6KE9.1A | ◆ | DO-15 | 8.65 | 7.8 | .19 | .165 | .14 | .13 |
| 256701CX | SA12A | ◆ | DO-15 | 13.3 | 12.0 | .20 | .19 | .17 | .13 |
| 254991CX | SA12CA | ◆ | DO-15 | 13.3 | 12.0 | .30 | .29 | .27 | .24 |
| 254983CX | SA13A | ◆ | DO-15 | 14.4 | 13.0 | * | .16 | .15 | .14 |
| 254975CX | SA15A | ◆ | DO-15 | 16.7 | 15.0 | .24 | .23 | .22 | .19 |
| 255943CX | P6KE16A | ◆ | DO-15 | 15.2 | 13.6 | .21 | .20 | .195 | .13 |
| 255935CX | P6KE16CA | ◆ | DO-15 | 15.2 | 13.6 | .25 | .24 | .225 | .19 |
| 255919CX | P6KE18A | ◆ | DO-15 | 17.1 | 15.3 | .23 | .22 | .20 | .135 |
| 255901CX | P6KE18CA | ◆ | DO-15 | 17.1 | 15.3 | .23 | .22 | .20 | .136 |
| 255863CX | P6KE20A | ◆ | DO-15 | 19.0 | 17.1 | * | .26 | .25 | .24 |
| 254967CX | SA20A | ◆ | DO-15 | 22.2 | 20.0 | .20 | .19 | .18 | .13 |
| 272102CX | P6KE22A | ◆ | DO-15 | 20.9 | 18.8 | .19 | .17 | .155 | .134 |
| 255855CX | P6KE24A | ◆ | DO-15 | 22.8 | 20.5 | .23 | .22 | .20 | .135 |
| 255847CX | P6KE24CA | ◆ | DO-15 | 22.8 | 20.5 | * | .17 | .15 | .12 |
| 254916CX | SA24A | ◆ | DO-15 | 26.7 | 24.0 | .24 | .23 | .22 | .19 |
| 255821CX | P6KE27A | ◆ | DO-15 | 25.7 | 23.1 | .26 | .25 | .24 | .17 |
| 255812CX | P6KE27CA | ◆ | DO-15 | 25.7 | 23.1 | .24 | .23 | .22 | .16 |
| 254908CX | SA28A | ◆ | DO-15 | 31.1 | 28.0 | .24 | .23 | .22 | .19 |
| 255804CX | P6KE30A | ◆ | DO-15 | 28.5 | 25.6 | .26 | .25 | .23 | .19 |
| 254895CX | SA30A | ◆ | DO-15 | 33.3 | 30.0 | .31 | .30 | .25 | .18 |
| 255791CX | P6KE30CA | ◆ | DO-15 | 28.5 | 25.6 | .26 | .25 | .23 | .19 |
| 254887CX | SA30CA | ◆ | DO-15 | 33.3 | 30.0 | .46 | .37 | .28 | .17 |
| 255783CX | P6KE33A | ◆ | DO-15 | 31.4 | 28.2 | .25 | .24 | .23 | .18 |
| 255775CX | P6KE33CA | ◆ | DO-15 | 31.4 | 28.2 | .25 | .24 | .23 | .16 |
| 255767CX | P6KE36A | ◆ | DO-15 | 34.2 | 30.8 | .23 | .22 | .20 | .136 |
| 255759CX | P6KE39A | ◆ | DO-15 | 37.1 | 33.3 | .26 | .24 | .23 | .19 |
| 255741CX | P6KE39CA | ◆ | DO-15 | 37.1 | 33.3 | * | .17 | .16 | .15 |
| 256698CX | P6KE47A | ◆ | DO-15 | 44.7 | 40.2 | .20 | .19 | .18 | .13 |
| 256680CX | P6KE47CA | ◆ | DO-15 | 44.7 | 40.2 | .17 | .155 | .13 | .13 |
| 256671CX | P6KE51A | ◆ | DO-15 | 48.5 | 43.6 | .24 | .23 | .185 | .185 |
| 256655CX | P6KE68A | ◆ | DO-15 | 64.6 | 58.1 | .25 | .24 | .23 | .23 |
| 256621CX | P6KE91A | ◆ | DO-15 | 86.5 | 77.8 | .26 | .25 | .23 | .18 |
| 255951CX | P6KE150CA | ◆ | DO-15 | 143.0 | 128.0 | .36 | .33 | .28 | .17 |
| 255927CX | P6KE180A | ◆ | DO-15 | 171.0 | 154.0 | .26 | .23 | .15 | .135 |
| 255871CX | P6KE200A | ◆ | DO-15 | 190.0 | 171.0 | .38 | .35 | .33 | .27 |
| 255839CX | P6KE250CA | ◆ | DO-15 | 237.0 | 214.0 | .26 | .23 | .15 | .14 |

◆ Manufacturer varies

Diode/Rectifier Assortment Cabinet Kit

420 pcs. (15 types) Diodes, Zener Diodes, Switching and Silicon Rectifiers

SAVE \$3

Includes:

20-drawer component cabinet (81701CX),
20 clear plastic drawers (85454CX),
20 clear dividers (85446CX), pg 108 and
30 adhesive labels for drawers to identify parts in kit

10 each: 1N270, 1N751A, 1N3600, 1N4001, 1N4007,
1N4733A, 1N4735A, 1N4742A, 1N5404,
1N5408, C106B1, KBP04M

100 each: 1N914, 1N4004, 1N4148

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-------------------------------|------------|---------|---------|
| 82589CX | 420 pcs. (15 types) diode kit | 5.0 | \$39.95 | \$35.95 |
| 130368CX | Refill for 82589CX (420 pcs.) | 0.3 | 25.95 | 21.95 |



Diac/Triacs/Quadrac

SALE

Call for pricing on quantities over 5000 – we carry major manufacturers.

New Lower
Prices

Package (pg 30)

| * Prepackaged: order in increments of 10, 100 or 1000 | | | | | | | | | |
|---|-------------|------|----------|--------------|-------------------------------------|-----------------------|------|------|------|
| Part No. | Product No. | Mfr. | Pkg. | Type | Rating | 1 | 10 | 100 | 1000 |
| 160098CX | HT-32 | TEC | DO-35 | Diac | 27.37 V _{BO} , 2A | * .15 | .15 | .125 | |
| 31819CX | SC146B | ♦ | TO-220 | Triac | 200 V _{DRM} , 10A (2N6342) | 1.29 | 1.15 | .99 | |
| 31827CX | SC146M | ♦ | TO-220 | Triac | 600 V _{DRM} , 10A (2N6344) | 1.99 | 1.69 | 1.49 | |
| 160178CX | L401E3 | TEC | TO-92 | Triac | 400 V _{DRM} , 1A | \$.73 .65 | .56 | .52 | |
| 160194CX | Q401E3 | TEC | TO-92 | Triac | 400 V _{DRM} , 1A | \$.66 .59 | .52 | .47 | |
| 220468CX | L4004F31 | TEC | TO-220AB | Triac | 400 V _{DRM} , 4A | 1.09 | .99 | .96 | |
| 160186CX | L4004F51 | TEC | TO-220AB | Triac | 400 V _{DRM} , 4A | \$.95 .85 | .76 | .69 | |
| 220450CX | L4004L3 | TEC | TO-220AB | Triac | 400 V _{DRM} , 4A | \$.30 1.15 | 1.03 | .95 | |
| 160240CX | Q4004LT | TEC | TO-220AB | Quadrac | 400 V _{DRM} , 4A | 1.25 | 1.12 | .99 | |
| 160207CX | Q4008L4 | TEC | TO-220AB | Triac | 400 V _{DRM} , 8A | \$.34 1.19 | 1.06 | .97 | |
| 220492CX | Q4008R4 | TEC | TO-220AB | Triac | 400 V _{DRM} , 8A | \$.23 1.05 | .97 | .89 | |
| 139336CX | Q4015L5 | ♦ | TO-220AB | Triac | 400 V _{DRM} , 15A | 1.55 | 1.36 | 1.25 | |
| 160143CX | Q4025L6 | TEC | TO-220AB | Triac | 400 V _{DRM} , 25A | 2.59 | 2.29 | 1.91 | |
| 160215CX | Q6008L5 | TEC | TO-220AB | Triac | 600 V _{DRM} , 8A | \$.49 1.35 | 1.18 | 1.07 | |
| 160231CX | Q6015L5 | TEC | TO-220AB | Triac | 600 V _{DRM} , 15A | \$.07 1.79 | 1.63 | 1.49 | |
| 220513CX | Q6025P5 | TEC | TO-3 | Triac | 600 V _{DRM} , 25A | \$.29 7.59 | 6.75 | 5.95 | |
| 220505CX | Q6025R6 | TEC | TO-220AB | Triac | 600 V _{DRM} , 25A | \$.55 2.25 | 2.05 | 1.85 | |
| 220521CX | Q6035P5 | TEC | TO-3 | Triac | 600 V _{DRM} , 35A | 10.99 | 9.89 | 8.89 | |
| 140425CX | 2N6071A | ♦ | TO-225AA | Triac | 200 V _{DRM} , 4A | \$.49 .29 | .27 | .24 | |
| ♦ Manufacturer varies | | | | TEC = Teccor | | | | | |

Silicon Controlled Rectifiers (SCR)

Package (pg 30)

| * Prepackaged: order in increments of 10, 100 or 1000 | | | | | | | | | |
|--|-------------|------|----------|-----------------------------|-----------------------|------|------|------|--|
| Part No. | Product No. | Mfr. | Pkg. | Rating | 1 | 10 | 100 | 1000 | |
| 119802CX | 2N5060 | ♦ | TO-92 | 25 PRV, 0.8A | \$.29 .19 | .15 | .12 | .095 | |
| 211422CX | 2N5061 | ♦ | TO-92 | 60 PRV, 0.8A | ... | .14 | .13 | .10 | |
| 120070CX | 2N5062 | ♦ | TO-92 | 100 PRV, 0.8A | .19 | .155 | .145 | .135 | |
| 211431CX | 2N5064 | ♦ | TO-92 | 200 PRV, 0.8A | ... | .14 | .13 | .10 | |
| 140417CX | 2N6507 | ♦ | TO-220AB | 400 PRV, 25A | \$.59 1.05 | .99 | .85 | .75 | |
| 14859CX | C38M | ♦ | TO-65 | 600 PRV, 35A (2N3899) | 6.89 | 6.19 | 5.59 | 5.05 | |
| 14736CX | C106B1* | ♦ | TO-202 | 200 PRV, 4A (2N6239) | \$.65 .45 | .40 | .35 | .30 | |
| 14752CX | C122B | ♦ | TO-220 | 200 PRV, 8A | .89 | .85 | .69 | .63 | |
| 14761CX | C122M | ♦ | TO-220 | 600 PRV, 8A | 1.35 | 1.25 | 1.05 | .69 | |
| 220484CX | EC103B | TEC | TO-92 | 200 V _{DRM} , 0.8A | .35 | .34 | .32 | .30 | |
| 160101CX | EC103D | TEC | TO-92 | 400 V _{DRM} , 0.8A | \$.41 .38 | .32 | .31 | .29 | |
| 220530CX | T106B1 | TEC | TO-202AB | 200 V _{DRM} , 4A | .58 | .49 | .45 | .37 | |
| 160119CX | T106D1 | TEC | TO-202AB | 400 V _{DRM} , 4A | \$.65 .59 | .51 | .46 | .36 | |
| 160127CX | S401E | TEC | TO-92 | 400 V _{DRM} , 1A | \$.56 .35 | .32 | .30 | .29 | |
| 220548CX | S4025L | TEC | TO-220AB | 400 V _{DRM} , 25A | 1.65 | 1.47 | 1.34 | 1.04 | |
| 160135CX | S6025L | TEC | TO-220AB | 600 V _{DRM} , 25A | 1.75 | 1.59 | 1.43 | 1.22 | |
| † Isolated ♦ Manufacturer varies TEC = Teccor *10 pcs. in Diode/rectifier cabinet kit, pg 30 | | | | | | | | | |

Rectifiers

* Prepackaged: order in increments of 10, 100 or 1000

| * Prepackaged: order in increments of 10, 100 or 1000 | | | | | | | | | |
|--|-------------|------|-------|-------------------------|------|------|------|------|-----|
| Part No. | Product No. | Mfr. | Pkg. | Rating | 1 | 10 | 100 | 1000 | |
| 177754CX | T6A05L | ♦ | T6L | 50 PIV, 6A | .31 | .28 | .25 | .23 | |
| 177762CX | T6A10L | ♦ | T6L | 100 PIV, 6A | .65 | .55 | .45 | .39 | |
| 177818CX | T6A100L | ♦ | T6L | 1000 PIV, 6A | 4.25 | .65 | .59 | .49 | .39 |
| 35924CX | 1N1188 | ♦ | DO-5 | 400 PRV 35A | 4.65 | 3.89 | 3.27 | 2.99 | |
| 35975CX | 1N4001* | ♦ | DO-41 | 50 PRV, 1A | ... | .035 | .025 | .015 | |
| 76961CX | 1N4002 | ♦ | DO-41 | 100 PRV, 1A | ... | .039 | .025 | .018 | |
| 177885CX | UF4002 | ♦ | DO-41 | 100 PIV, 1A | ... | .07 | .063 | .058 | |
| 76970CX | 1N4003 | ♦ | DO-41 | 200 PRV, 1A | ... | .035 | .025 | .015 | |
| 35991CX | 1N4004** | ♦ | DO-41 | 400 PRV, 1A | ... | .04 | .025 | .02 | |
| 76988CX | 1N4005 | ♦ | DO-41 | 600 PRV, 1A | ... | .035 | .025 | .015 | |
| 76996CX | 1N4006 | ♦ | DO-41 | 800 PRV, 1A | ... | .035 | .025 | .015 | |
| 177922CX | UF4006 | ♦ | DO-41 | 800 PIV, 1A | ... | .075 | .068 | .062 | |
| 36011CX | 1N4007* | ♦ | DO-41 | 1000 PRV, 1A | ... | .038 | .029 | .02 | |
| 227846CX | 1N5059 | ♦ | SOD57 | 200 V _R , 2A | ... | .12 | .10 | .085 | |
| 227854CX | 1N5060 | ♦ | SOD57 | 400 V _R , 2A | ... | .11 | .09 | .08 | |
| 227862CX | 1N5061 | ♦ | SOD57 | 600 V _R , 2A | ... | .135 | .125 | .095 | |
| ♦ Manufacturer varies *10 pcs./ **100 pcs. in Diode/rectifier cabinet kit, pg 30 | | | | | | | | | |

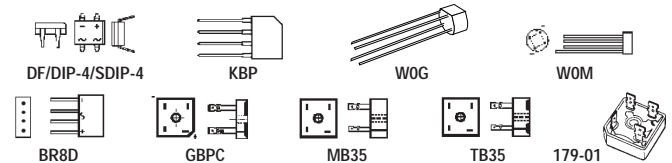
Rectifiers (Continued)

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Product No. | Mfr. | Pkg. | Rating | 1 | 10 | 100 | 1000 | |
|----------|-------------|------|----------|-------------------------|----------------------|------|------|------|--|
| 227871CX | 1N5062 | ♦ | SOD57 | 800 V _R , 2A | ... | .16 | .156 | .115 | |
| 214543CX | 1N5399 | ♦ | DO-15 | 1000 PRV, 1.5A | ... | .054 | .038 | .025 | |
| 77075CX | 1N5400 | ♦ | DO-27A | 50 PRV, 3A | ... | .10 | .095 | .07 | |
| 36249CX | 1N5401 | ♦ | DO-27A | 100 PIV, 3A | ... | .075 | .065 | .051 | |
| 77083CX | 1N5402 | ♦ | DO-27A | 200 PRV, 3A | ... | .085 | .075 | .056 | |
| 36265CX | 1N5404* | ♦ | DO-27A | 400 PRV, 3A | ... | .10 | .09 | .069 | |
| 36273CX | 1N5408* | ♦ | DO-27A | 1000 PRV, 3A | ... | .15 | .11 | .08 | |
| 177949CX | 1N5817 | ♦ | DO-204AL | 20 PIV, 1A | ... | .11 | .09 | .069 | |
| 177957CX | 1N5818 | ♦ | DO-204AL | 30 PIV, 1A | ... | .09 | .08 | .055 | |
| 177965CX | 1N5819 | ♦ | DO-204AL | 40 PIV, 1A | ... | .10 | .085 | .075 | |
| 177973CX | 1N5820 | ♦ | DO-201AD | 20 PIV, 3A | .22 | .20 | .19 | .16 | |
| 177981CX | 1N5821 | ♦ | DO-201AD | 30 PIV, 3A | \$.20 .19 | .16 | .15 | .12 | |
| 177990CX | 1N5822 | ♦ | DO-201AD | 40 PIV, 3A | .23 | .19 | .17 | .15 | |

*10 pcs. in Diode/rectifier cabinet kit, pg 30

Bridge Rectifiers

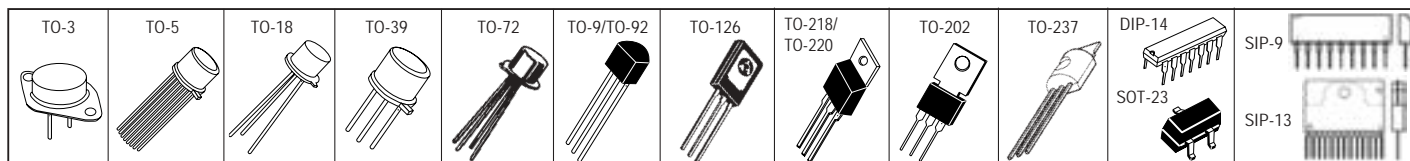


| Part No. | Product No. | Mfr. | Pkg. | Rating | 1 | 10 | 100 | 1000 | |
|----------|-------------|------|--------|----------------|-----------------------|------|------|------|--|
| 178001CX | DF005M | ♦ | DF | 50 PIV, 1A | .35 | .30 | .22 | .15 | |
| 255960CX | DF005S | ♦ | SDIP-4 | 50 PIV, 1.5A | .30 | .26 | .22 | .18 | |
| 103000CX | DF01M | ♦ | DF | 100 PIV, 1A | .30 | .26 | .21 | .17 | |
| 103042CX | DF02M | ♦ | DF | 200 PIV, 1A | .35 | .30 | .22 | .17 | |
| 102971CX | DF04M | ♦ | DF | 400 PIV, 1A | .45 | .41 | .35 | .31 | |
| 103034CX | DF06M | ♦ | DF | 600 PIV, 1A | .32 | .30 | .25 | .21 | |
| 103026CX | DF10M | ♦ | DF | 1000 PIV, 1A | .30 | .27 | .23 | .15 | |
| 256559CX | DF10S | ♦ | SDIP-4 | 1000 PIV, 1A | .31 | .26 | .23 | .19 | |
| 256575CX | DF08M | ♦ | DIP-4 | 800 PIV, 1.5A | .35 | .30 | .25 | .18 | |
| 256604CX | DF01S | ♦ | SDIP-4 | 100 PIV, 1.5A | .29 | .23 | .21 | .18 | |
| 256591CX | DF02S | ♦ | SDIP-4 | 200 PIV, 1.5A | .30 | .25 | .22 | .16 | |
| 256583CX | DF04S | ♦ | SDIP-4 | 400 PIV, 1.5A | .32 | .28 | .24 | .20 | |
| 256567CX | DF08S | ♦ | SDIP-4 | 800 PIV, 1.5A | .29 | .27 | .22 | .20 | |
| 145429CX | KBP02M | ♦ | KBP | 200 PIV, 1.5A | \$.46 .40 | .35 | .29 | .19 | |
| 119562CX | KBP04M* | ♦ | KBP | 400 PIV, 1.5A | .45 | .32 | .23 | .19 | |
| 279494CX | W005G | ♦ | WOG | 50 PIV, 1.5A | .38 | .34 | .31 | .265 | |
| 103018CX | W02G | ♦ | WOG | 200 PIV, 1.5A | .38 | .32 | .28 | .19 | |
| 102980CX | W04G | ♦ | WOG | 400 PIV, 1.5A | .36 | .27 | .18 | .17 | |
| 102998CX | W06G | ♦ | WOG | 600 PIV, 1.5A | .40 | .35 | .29 | .20 | |
| 179469CX | W08G | ♦ | WOG | 800 PIV, 1.5A | .35 | .32 | .26 | .18 | |
| 279515CX | W10G | ♦ | WOG | 1000 PIV, 1.5A | .34 | .30 | .21 | .18 | |
| 178124CX | W005M | ♦ | WOM | 50 PIV, 1.5A | .38 | .33 | .28 | .19 | |
| 178132CX | W01M | ♦ | WOM | 100 PIV, 1.5A | .36 | .27 | .20 | .17 | |
| 178141CX | W02M | ♦ | WOM | 200 PIV, 1.5A | .38 | .33 | .28 | .19 | |
| 178175CX | W08M | ♦ | WOM | 800 PIV, 1.5A | .39 | .30 | .21 | .19 | |
| 178183CX | BR805D | ♦ | BR8D | 50 PIV, 2A | .55 | .49 | .39 | .35 | |
| 178204CX | BR82D | ♦ | BR8D | 200 PIV, 2A | .85 | .77 | .69 | .62 | |
| 178247CX | BR810D | ♦ | BR8D | 1000 PIV, 2A | \$.69 .59 | .49 | .39 | .35 | |
| 253260CX | 2KBP06M | ♦ | KBP | 600 PIV, 2A | \$.66 .41 | .35 | .29 | .24 | |
| 253286CX | 2KBP10M | ♦ | KBP | 1000 PIV, 2A | .40 | .35 | .29 | .24 | |
| 179477CX | GBPC25-01 | ♦ | GBPC | 100 PIV, 25A | \$.25 2.49 | 2.05 | 1.65 | 1.43 | |
| 179485CX | GBPC25-02 | ♦ | GBPC | 200 PIV, 25A | 3.25 | 2.69 | 2.25 | 1.65 | |
| 178280CX | MB25A | ♦ | MB35 | 400 PIV, 25A | 2.55 | 2.41 | 2.23 | 1.55 | |
| 178335CX | TB252 | ♦ | TB35 | 200 PIV, 25A | 2.10 | 1.85 | 1.69 | 1.50 | |
| 25574CX | MDA990-3 | ♦ | 179-01 | 200 PIV, 30A | 3.99 | 3.45 | 2.99 | 1.85 | |
| 25591CX | MDA990-6 | ♦ | 179-01 | 600 PIV, 30A | \$.95 4.59 | 4.29 | 3.99 | 3.59 | |
| 178431CX | MB358 | ♦ | MB35 | 800 PIV, 35A | 3.59 | 3.29 | 2.75 | 1.85 | |
| 178440CX | TB3505 | ♦ | TB35 | 50 PIV, 35A | 3.59 | 3.11 | 2.44 | 1.41 | |
| 178503CX | TB3510 | ♦ | TB35 | 1000 PIV, 35A | 2.99 | 2.49 | 2.09 | 1.96 | |

♦ Manufacturer varies *10 pcs. in Diode/rectifier cabinet kit, pg 30

† DF/KBP/WOG/WOM/179-01 – plastic case; GBPC/TB35 – plastic case, metal base; MB35 – metal case

Please call our sales rep if you cannot find the NTE product replacement you are trying to find or for special pricing on large quantity orders.



Integrated Circuits

| Part No. | Cross Ref. | Pkg. | Description | Package (see above) | | |
|----------|------------|----------|--|---------------------|--------|--------|
| | | | | 1 | 10 | 25 |
| 260161CX | NTE778A | DIP-8 | Dual operational amplifier | \$2.38 | \$2.29 | \$2.21 |
| 260179CX | NTE823 | DIP-8 | Low voltage audio amplifier | 1.52 | 1.49 | 1.45 |
| 275442CX | NTE824 | DIP-8 | Stereo preamp. | 2.75 | 2.62 | 2.49 |
| 275451CX | NTE834 | DIP-14 | Quad comparator | 1.89 | 1.81 | 1.65 |
| 275469CX | NTE857M | DIP-8 | JFET input op amp. | 2.95 | 2.68 | 2.22 |
| 260187CX | NTE858M | DIP-8 | Dual low noise JFET input op amp. | 2.62 | 2.41 | 2.15 |
| 260195CX | NTE859 | DIP-14 | Quad low noise JFET input op amp. | 3.73 | 3.55 | 3.39 |
| 275485CX | NTE891M | DIP-8 | Dual audio op amplifier | 1.49 | 1.47 | 1.44 |
| 275522CX | NTE916 | DIP-16 | NPN transistor array | 4.25 | 3.92 | 3.59 |
| 275557CX | NTE928M | DIP-8 | Dual low power op amplifier | 2.29 | 2.05 | 1.82 |
| 275573CX | NTE937M | DIP-8 | JFET input op amplifier | 2.85 | 2.55 | 2.27 |
| 275581CX | NTE938M | DIP-8 | Precision op amplifier | 9.49 | 9.02 | 8.56 |
| 260216CX | NTE941 | TO-5/8 | Operational amplifier | 5.78 | 5.75 | 5.69 |
| 260224CX | NTE941M | DIP-8 | Operational amplifier | .92 | .88 | .85 |
| 275602CX | NTE941SM | DIP-8 | General purpose op amplifier | 1.15 | 1.09 | 1.04 |
| 275611CX | NTE943M | DIP-8 | Dual comparator, low power & offset | 3.09 | 2.95 | 2.67 |
| 260232CX | NTE947D | DIP-14 | Dual operational amplifier | 4.93 | 4.58 | 4.07 |
| 275629CX | NTE948 | DIP-14 | Quad op amplifier | 3.09 | 2.78 | 2.48 |
| 260241CX | NTE955M | DIP-8 | Timing circuit | 1.29 | 1.25 | 1.20 |
| 275645CX | NTE955MC | DIP-8 | CMOS, mono timer | 1.35 | 1.32 | 1.29 |
| 275696CX | NTE975 | DIP-8 | Op amplifier | 2.45 | 2.33 | 2.20 |
| 275717CX | NTE978 | DIP-14 | Dual timer | 2.49 | 2.29 | 1.88 |
| 260347CX | NTE987 | DIP-14 | Quad low power operational amplifier | 1.96 | 1.85 | 1.80 |
| 275733CX | NTE997 | DIP-14 | Quad op amplifier | 3.35 | 2.85 | 2.54 |
| 260355CX | NTE999 | TO-92 | Adjustable precision shunt regulator | 1.02 | .99 | .95 |
| 272292CX | NTE1232 | TO-220/5 | Amp, audio power, 8w, 5-p | 6.05 | 5.79 | 5.52 |
| 272305CX | NTE1289 | DIP-12 | TV vertical deflection system | 11.05 | 10.49 | 9.95 |
| 272399CX | NTE1508 | DIP-18 | Dot/bar display driver, 10-step | 7.25 | 6.85 | 6.52 |
| 272428CX | NTE1561 | SIP-9 | 5 LED VU level meter | 2.85 | 2.69 | 2.57 |
| 272495CX | NTE1684 | SIP-7 | TV vertical deflection circuit | 4.79 | 4.69 | 4.58 |
| 260128CX | NTE1714M | DIP-8 | Remote control amplifier/driver | 4.99 | 4.19 | 4.11 |
| 272524CX | NTE1729 | DIP-16 | PWM control circuit | 4.19 | 4.10 | 4.00 |
| 272532CX | NTE1773 | SIP-7 | Vertical deflection output circuit | 2.95 | 2.89 | 2.82 |
| 272559CX | NTE1782 | SIP-7 | TV vertical deflection output circuit | 4.95 | 4.83 | 4.71 |
| 272567CX | NTE1784 | DIP-16 | Horizontal processor | 4.39 | 4.28 | 4.17 |
| 272575CX | NTE1788 | SIP-7 | TV vertical output | 5.79 | 5.67 | 5.55 |
| 272604CX | NTE1850 | SIP-9 | Audio amp, dual, 12W/ch | 7.69 | 7.53 | 7.36 |
| 272701CX | NTE2013 | DIP-16 | 7-channel darlington array driver | 3.39 | 3.30 | 3.21 |
| 260136CX | NTE2014 | DIP-16 | 7-channel darlington array driver | 2.84 | 2.69 | 2.59 |
| 260144CX | NTE2018 | DIP-18 | 8-channel darlington array driver | 3.29 | 3.15 | 3.09 |
| 272719CX | NTE2021 | DIP-18 | 8-digit/segment fluorescent display driver | 3.49 | 3.40 | 3.32 |
| 272735CX | NTE2117 | DIP-16 | MOS 16k DRAM | 14.15 | 13.57 | 11.88 |
| 259291CX | NTE4001B | DIP-14 | Quad 2-input NOR gate | .68 | .65 | .62 |
| 259303CX | NTE4006B | DIP-14 | 18-stage static shift register | 2.82 | 2.77 | 2.71 |
| 273800CX | NTE4011B | DIP-14 | CMOS quad 2-input nand gate | .91 | .85 | .77 |
| 259311CX | NTE4013B | DIP-14 | Dual-D flip-flop w/ set/reset | 1.10 | 1.06 | 1.02 |
| 273818CX | NTE4017B | DIP-16 | CMOS decade counter | 1.99 | 1.89 | 1.71 |
| 273826CX | NTE4026B | DIP-16 | CMOS decade counter/divider | 2.65 | 2.58 | 2.52 |
| 259320CX | NTE4049 | DIP-16 | Hex buffer/converter (inverting) | 1.22 | 1.18 | 1.14 |
| 273834CX | NTE4050B | DIP-16 | CMOS hex buffer/converter | 1.59 | 1.55 | 1.51 |
| 259338CX | NTE4066B | DIP-14 | Quad bilateral switch | 1.42 | 1.37 | 1.31 |
| 273842CX | NTE4069 | DIP-14 | CMOS hex inverter, HV | .76 | .75 | .73 |
| 273851CX | NTE4081B | DIP-14 | CMOS quad 2-input and gate | .68 | .67 | .65 |
| 259346CX | NTE4093B | DIP-14 | Quad 2-input NAND Schmitt trigger | 1.05 | 1.02 | .99 |
| 273914CX | NTE4538B | DIP-16 | CMOS dual multivibrator | 1.69 | 1.65 | 1.61 |
| 273922CX | NTE4584B | DIP-14 | CMOS hex Schmitt trigger | 1.29 | 1.25 | 1.21 |
| 275039CX | NTE6403 | — | Silicon bilateral switch | 7.59 | 7.42 | 7.24 |
| 275071CX | NTE6800 | DIP-40 | MPU, NMOS, 8-bit, 1MHz | 13.69 | 13.14 | 11.51 |
| 260152CX | NTE7039 | SIP-13 | Vert. deflection output circuit w/ drive circuit | 3.19 | 3.09 | 2.99 |
| 275098CX | NTE7096 | DIP-8 | PWM control circuit | 2.99 | 2.87 | 2.75 |

Integrated Circuits (Continued)

| Part No. | Cross Ref. | Pkg. | Description | Package (see above) | | |
|----------|------------|--------|------------------------------------|---------------------|--------|--------|
| | | | | 1 | 10 | 25 |
| 275101CX | NTE7104 | SIP-13 | Vertical deflection output circuit | \$2.89 | \$2.82 | \$2.74 |
| 275119CX | NTE7400 | DIP-14 | TTL NAND gate | 1.25 | 1.17 | 1.08 |
| 275223CX | NTE74LS00 | DIP-14 | TTL NAND gate | .73 | .72 | .70 |
| 275127CX | NTE7402 | DIP-14 | TTL NOR gate | .95 | .92 | .89 |
| 275194CX | NTE74HC02 | DIP-14 | Hi-speed CMOS quad 2-in gate | .55 | .54 | .52 |
| 275231CX | NTE74LS02 | DIP-14 | TTL NOR gate | .73 | .72 | .70 |
| 275240CX | NTE74LS03 | DIP-14 | TTL NAND gate | .73 | .72 | .70 |
| 275135CX | NTE7404 | DIP-14 | TTL hex inverter | .84 | .82 | .80 |
| 275258CX | NTE74LS04 | DIP-14 | TTL hex inverter | .90 | .88 | .86 |
| 275143CX | NTE7406 | DIP-14 | TTL hex inverter buffer | 1.15 | 1.10 | .95 |
| 259354CX | NTE7407 | DIP-14 | Hex buffer/driver | 1.29 | 1.25 | 1.20 |
| 259362CX | NTE7408 | DIP-14 | Quad 2-input AND gate | 1.06 | 1.03 | .99 |
| 275266CX | NTE74LS08 | DIP-14 | TTL AND gate | .80 | .78 | .76 |
| 275274CX | NTE74LS11 | DIP-14 | TTL AND gate | .72 | .70 | .68 |
| 275207CX | NTE74HC14 | DIP-14 | Hi-speed CMOS hex schmitt | .65 | .64 | .62 |
| 275151CX | NTE7432 | DIP-32 | TTL OR gate | 1.29 | 1.26 | 1.22 |
| 275303CX | NTE74LS32 | DIP-32 | TTL quad 2 input or gate | .86 | .83 | .81 |
| 275160CX | NTE7447 | DIP-16 | TTL decoder/driver | 2.45 | 2.39 | 2.32 |
| 275178CX | NTE7474 | DIP-14 | TTL dual "D" flip-flop | .69 | .65 | .59 |
| 259389CX | NTE7475 | DIP-16 | 4-bit bi-stable latch | 3.89 | 3.71 | 3.54 |
| 275320CX | NTE74LS76A | DIP-16 | TTL dual flip/flop | .92 | .90 | .88 |
| 275426CX | NTE8216 | DIP-16 | Schottky bus driver | 4.89 | 4.52 | 4.14 |
| 273797CX | NTE40106B | DIP-14 | CMOS hex Schmitt trigger | 1.25 | 1.22 | 1.18 |
| 259371CX | NTE74121 | DIP-14 | Monostable multivibrator | 2.29 | 2.21 | 1.97 |
| 275338CX | NTE75188 | DIP-14 | DTL quad line driver, RS-232 | 1.55 | 1.52 | 1.48 |
| 259397CX | NTE75189 | DIP-14 | Quad line receiver | 1.22 | 1.18 | 1.14 |
| 275282CX | NTE74LS192 | DIP-16 | TTL up/down counter | 2.49 | 2.43 | 2.37 |
| 275215CX | NTE74HC244 | DIP-20 | Hi-speed CMOS octal buffer | 1.29 | 1.27 | 1.24 |
| 275291CX | NTE74LS244 | DIP-20 | TTL quad driver | 3.65 | 3.55 | 3.46 |
| 275311CX | NTE74LS490 | DIP-16 | TTL dual decade counter | 3.05 | 2.97 | 2.90 |

Voltage Regulators

| Part No. | Cross Ref. | Pkg. | Description | Package (see above) | | |
|----------|------------|------------|-----------------------------|---------------------|--------|--------|
| | | | | 1 | 10 | 25 |
| 261358CX | NTE309K | TO-3 | +5V, 1A | \$8.02 | \$7.85 | \$7.65 |
| 275531CX | NTE923 | 10-Lead MC | +2-37V, 150mA | 4.99 | 4.74 | 4.50 |
| 275549CX | NTE923D | DIP-14 | +2-37V, 150mA | 1.45 | 1.38 | 1.31 |
| 260208CX | NTE931 | TO-3 | +5V, 3A | 11.60 | 11.02 | 9.86 |
| 275565CX | NTE935 | TO-3 | +1.2-32V, 5A | 13.89 | 13.19 | 12.53 |
| 275637CX | NTE950 | TO-92 | +12V, 100mA | 2.15 | 2.03 | 1.92 |
| 275653CX | NTE956 | TO-220 | +1.2-37V, 1.5A | 2.25 | 2.01 | 1.79 |
| 275661CX | NTE957 | TO-220 | -1.2-37V, 1.5A | 3.29 | 2.76 | 2.64 |
| 260259CX | NTE960 | TO-220 | +5V, 1A | 1.65 | 1.59 | 1.53 |
| 260267CX | NTE961 | TO-220 | -5V, 1A | 1.65 | 1.59 | 1.53 |
| 260275CX | NTE962 | TO-220 | +6V, 1A | 1.32 | 1.28 | 1.23 |
| 260283CX | NTE964 | TO-220 | +8V, 1A | 1.29 | 1.25 | 1.19 |
| 260291CX | NTE966 | TO-220 | +12V, 1A | 1.65 | 1.59 | 1.53 |
| 260304CX | NTE967 | TO-220 | -12V, 1A | 1.65 | 1.59 | 1.53 |
| 260312CX | NTE968 | TO-220 | +15V, 1A | 1.65 | 1.59 | 1.53 |
| 275670CX | NTE969 | TO-220 | -15V, 1A | 1.65 | 1.59 | 1.39 |
| 275688CX | NTE970 | TO-3 | +1.2-33V, 3A | 10.55 | 10.02 | 9.52 |
| 260321CX | NTE971 | TO-220 | -24V, 1A | 4.65 | 4.39 | 4.15 |
| 260339CX | NTE972 | TO-220 | +24V, 1A | 1.65 | 1.59 | 1.53 |
| 275709CX | NTE977 | TO-92 | +5V, 100mA | 1.35 | 1.30 | 1.15 |
| 272541CX | NTE1777 | SIP-5 | +130V, 1A | 12.35 | 12.01 | 11.66 |
| 272591CX | NTE1840 | SIP-5 | +41.8V, 2A hybrid switching | 13.75 | 12.65 | 11.54 |
| 272612CX | NTE1910 | TO-220 | +9V, 1A switching | 1.59 | 1.55 | 1.51 |
| 261331CX | NTE1914 | TO-3 | +12V, 1A | 3.75 | 3.72 | 3.69 |
| 261340CX | NTE1915 | TO-3 | -12V, 1A | 3.89 | 3.85 | 3.79 |
| 272621CX | NTE1916 | TO-3 | +15V, 1.5A | 4.69 | 4.49 | 4.09 |
| 272647CX | NTE1936 | TO-3P | +12V, 2A | 6.05 | 5.90 | 5.75 |



Please call our sales rep if you cannot find the NTE product replacement you are trying to find or for special pricing on large quantity orders.

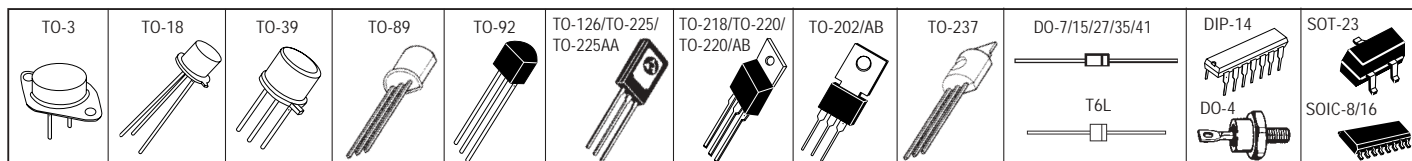
Transistors

| | | | Package (see pgs 32 & 34) | | |
|----------|------------|---------|---|--------|---------------|
| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 25 |
| 273017CX | NTE24 | TO-237 | NPN silicon, general-purpose amp., switch | \$1.42 | \$1.17 \$1.14 |
| 273551CX | NTE31 | TO-92 | NPN silicon, AF driver output | 2.35 | 2.27 2.00 |
| 273594CX | NTE32 | TO-92 | PNP silicon, TV sound/vert., AF driver output | 2.45 | 2.37 2.07 |
| 273640CX | NTE36 | TO-3P | NPN AF power amp., high-curr. switch | 6.09 | 5.84 5.59 |
| 273658CX | NTE37 | TO-3P | PNP AF power amp., high-curr. switch | 4.65 | 4.55 4.45 |
| 273931CX | NTE46 | TO-92 | NPN silicon, gen-pur. amp., preamp., driver | 1.49 | 1.45 1.28 |
| 261083CX | NTE47 | TO-92 | NPN high-gain, low-noise | .61 | .59 .57 |
| 261104CX | NTE48 | TO-92 | NPN darlington, high-current | .95 | .92 .89 |
| 274301CX | NTE51 | TO-220 | NPN high-voltage high-speed switch | 3.15 | 2.99 2.71 |
| 274440CX | NTE53 | TO-3 | NPN hi-speed switch | 11.39 | 11.12 10.84 |
| 274520CX | NTE54 | TO-220 | NPN audio power amplifier | 2.95 | 2.82 2.56 |
| 261112CX | NTE55 | TO-220 | PNP complementary trans., hi-freq. driver | 3.56 | 3.39 3.25 |
| 274976CX | NTE60 | TO-3 | NPN silicon complementary transistor | 9.49 | 8.55 7.09 |
| 275063CX | NTE68 | TO-3 | PNP silicon, gen-purpose hi-pwr audio | 9.85 | 9.57 9.29 |
| 261139CX | NTE85 | TO-92 | NPN general-purpose amplifier | .84 | .79 .76 |
| 275477CX | NTE89 | TO-3 | NPN color TV horizontal output | 10.09 | 9.56 8.69 |
| 275493CX | NTE90 | TO-92 | NPN general-purpose high-gain amp. | 1.09 | 1.04 .95 |
| 275506CX | NTE91 | TO-92 | NPN silicon, gen-purpose hi-gain amp. | 1.09 | 1.04 .95 |
| 275590CX | NTE94 | TO-3 | NPN high-voltage switch | 4.89 | 4.78 4.67 |
| 275725CX | NTE98 | TO-3 | NPN silicon, HV darl. pwr amp., switch | 18.39 | 17.47 16.60 |
| 260507CX | NTE100 | TO-18 | PNP germanium comp. trans. oscillator | 3.15 | 3.09 3.04 |
| 260515CX | NTE102 | TO-18 | PNP germanium comp. trans. pwr output driver | 3.69 | 2.49 3.35 |
| 272225CX | NTE102A | TO-1 | PNP germanium, medium power amp. | 2.09 | 2.06 2.03 |
| 272233CX | NTE103A | TO-1 | NPN darlington power amplifier | 1.55 | 1.45 1.39 |
| 272241CX | NTE107 | TO-92 | NPN silicon, UHF oscillator for tuner | 1.25 | 1.15 1.06 |
| 260523CX | NTE108 | TO-92 | NPN high-frequency amplifier | 1.34 | 1.29 1.24 |
| 272284CX | NTE121 | TO-3 | PNP hi pwr, low coll. sat. volt pwr output | 10.89 | 10.15 9.65 |
| 260531CX | NTE123 | TO-18 | NPN general-purpose audio amp., switch | .75 | .73 .71 |
| 260540CX | NTE123A | TO-18 | NPN comp. transistor, general-purpose | 1.07 | 1.04 .99 |
| 260558CX | NTE123AP | TO-92 | NPN audio amplifier switch | .86 | .79 .74 |
| 260566CX | NTE128 | TO-39 | NPN comp. trans., audio output, video driver | 1.19 | 1.15 1.07 |
| 260574CX | NTE128P | TO-237 | NPN comp. transistor, general-purpose | 1.29 | 1.25 1.20 |
| 260582CX | NTE129 | TO-237 | PNP comp. transistor, general-purpose | 2.26 | 2.19 2.09 |
| 272313CX | NTE129P | TO-237 | PNP silicon, general-purpose amp. | 1.19 | 1.16 1.02 |
| 260591CX | NTE130 | TO-3 | NPN audio pwr amp., medium speed switch | 2.76 | 2.52 2.29 |
| 272401CX | NTE152 | TO-220 | NPN audio power amplifier | 1.79 | 1.75 1.49 |
| 272410CX | NTE153 | TO-220 | PNP silicon, audio power amp., switch | 2.05 | 1.96 1.69 |
| 260603CX | NTE154 | TO-39 | NPN high-voltage video output | 2.82 | 2.65 2.56 |
| 272444CX | NTE157 | TO-126 | NPN silicon, HV audio power | 1.75 | 1.65 1.44 |
| 272452CX | NTE158 | TO-1 | PNP germanium audio power amp. | 2.15 | 2.08 2.01 |
| 260611CX | NTE159 | TO-92 | PNP audio amplifier switch | .96 | .91 .87 |
| 272461CX | NTE159M | TO-18 | PNP silicon, general-purpose | .78 | .76 .74 |
| 272479CX | NTE160 | TO-72 | PNP germanium RF-IF amp., FM mixer osc. | 4.09 | 3.89 3.55 |
| 272516CX | NTE171 | TO-202 | NPN silicon audio/video amplifier | 1.85 | 1.75 1.61 |
| 260620CX | NTE172A | TO-92 | NPN darlington pre-amp., med. sp. switch | .62 | .61 .58 |
| 260638CX | NTE175 | TO-3 | NPN comp. trans., hi-volt. med. pwr switch | 3.30 | 3.25 3.19 |
| 272583CX | NTE180 | TO-3 | PNP silicon, high-power audio amp. | 7.79 | 7.44 6.78 |
| 260646CX | NTE181 | TO-3 | NPN high-power audio amplifier | 6.60 | 6.29 6.01 |
| 260654CX | NTE184 | TO-126 | NPN comp. trans. audio pwr amp., switch | 1.81 | 1.75 1.69 |
| 260662CX | NTE185 | TO-126 | PNP comp. trans. audio pwr amp., switch | 1.90 | 1.85 1.77 |
| 272639CX | NTE192 | TO-92SH | NPN audio power output | 1.79 | 1.68 1.53 |
| 272655CX | NTE194 | TO-92 | NPN silicon, audio power amplifier | .58 | .56 .49 |
| 260671CX | NTE196 | TO-220 | NPN comp. trans. audio pwr output&med. pwr switch | 2.43 | 2.39 2.13 |
| 272663CX | NTE197 | TO-220 | PNP silicon, audio power output | 2.35 | 2.24 2.04 |
| 272671CX | NTE198 | TO-220 | NPN silicon, hi-volt power transistor | 2.55 | 2.43 2.20 |
| 260689CX | NTE199 | TO-92 | NPN low noise, high-gain amplifier | .67 | .65 .62 |
| 272743CX | NTE219 | TO-3 | PNP silicon, audio pwr amp., med sp switch | 4.15 | 3.97 3.61 |
| 272786CX | NTE232 | TO-92 | PNP silicon, darl. amp., preamp. | .78 | .75 .66 |
| 260777CX | NTE234 | TO-92 | PNP low-noise, high-gain amplifier | .89 | .85 .81 |
| 272866CX | NTE236 | B-26 | NPN silicon, RF power output | 9.04 | 7.82 7.62 |
| 260822CX | NTE238 | TO-3 | NPN color TV horizontal output | 5.55 | 5.49 5.45 |
| 273041CX | NTE243 | TO-3 | NPN darlington medium power amp. | 3.15 | 2.92 2.68 |
| 260857CX | NTE247 | TO-3 | NPN comp. trans. darlington power amp. | 5.27 | 4.99 4.80 |
| 273076CX | NTE248 | TO-3 | PNP darlington power amplifier | 6.05 | 5.59 5.13 |
| 273084CX | NTE249 | TO-3 | NPN darlington power amplifier | 7.89 | 7.71 7.53 |

Transistors (Continued)

| | | | Package (see pgs 32 & 34) | | |
|----------|------------|------------|---|--------|---------------|
| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 25 |
| 273121CX | NTE251 | TO-3 | NPN darlington power amplifier | \$8.19 | \$8.02 \$7.85 |
| 273130CX | NTE252 | TO-3 | PNP darlington power amplifier | 7.99 | 7.82 7.64 |
| 260865CX | NTE253 | TO-126 | NPN comp. trans. darlington power amp. | 1.53 | 1.49 1.43 |
| 273156CX | NTE254 | TO-218 | PNP darlington power amplifier | 2.19 | 2.10 1.92 |
| 260881CX | NTE261 | TO-220 | NPN comp. trans. darlington power amp. | 2.28 | 2.22 2.15 |
| 260890CX | NTE262 | TO-220 | PNP comp. trans. darlington power amp. | 2.52 | 2.49 2.40 |
| 260902CX | NTE263 | TO-220 | NPN comp. trans. darlington power amp. | 2.52 | 2.39 2.30 |
| 260911CX | NTE264 | TO-220 | PNP comp. trans. darlington power amp. | 2.91 | 2.85 2.75 |
| 260929CX | NTE265 | TO-220 | NPN darlington power amplifier | 3.76 | 3.74 3.65 |
| 273172CX | NTE270 | TO-218 | NPN darlington power amplifier | 4.59 | 4.41 4.07 |
| 273181CX | NTE271 | TO-218 | PNP darl. power amplifier, switch | 5.79 | 5.25 4.67 |
| 273199CX | NTE272 | TO-202 | NPN darlington | 13.95 | 11.15 10.87 |
| 273201CX | NTE283 | TO-3 | NPN silicon, horizontal output, switch | 9.79 | 9.52 9.25 |
| 273210CX | NTE284 | TO-3 | NPN audio power amplifier | 9.89 | 9.64 9.38 |
| 260937CX | NTE287 | TO-92 | NPN comp. trans. hi-volt., general-purpose | .87 | .85 .80 |
| 260945CX | NTE288 | TO-92 | PNP comp. trans. hi-volt., general-purpose | .80 | .74 .65 |
| 260953CX | NTE289A | TO-92 | NPN comp. transistor audio power amp. | 1.22 | 1.19 1.14 |
| 273228CX | NTE290 | U-83/TO-92 | PNP silicon audio power amp., switch | 1.05 | 1.03 1.00 |
| 260961CX | NTE290A | TO-92 | PNP comp. transistor audio power amp. | 1.38 | 1.34 1.28 |
| 260970CX | NTE291 | TO-220 | NPN comp. trans. medium power amp., switch | 2.16 | 2.09 2.01 |
| 273236CX | NTE292 | TO-220 | PNP silicon med-pwr amp., switch | 2.29 | 2.09 1.73 |
| 273244CX | NTE293 | TO-92 | NPN audio power amp. and driver | 1.65 | 1.55 1.41 |
| 273252CX | NTE294 | TO-92 | PNP silicon, audio amp. and driver | 1.65 | 1.55 1.41 |
| 273261CX | NTE295 | TO-126 | NPN silicon, RF pwr output, driver | 2.99 | 2.77 2.55 |
| 260988CX | NTE311 | TO-39 | NPN frequency multiplier driver, VHF/UHF | 2.78 | 2.75 2.67 |
| 260996CX | NTE316 | TO-39 | NPN high-gain, low-noise amp. | 3.10 | 3.02 2.95 |
| 273615CX | NTE323 | TO-39 | PNP silicon, general-purpose | 3.29 | 3.13 2.85 |
| 273623CX | NTE324 | TO-39 | NPN silicon complementary transistor | 4.25 | 3.92 3.59 |
| 261008CX | NTE331 | TO-220 | NPN comp. trans. audio power amp., switch | 2.89 | 2.74 2.61 |
| 261016CX | NTE332 | TO-220 | PNP comp. trans. audio power amp., switch | 2.89 | 2.75 2.62 |
| 261024CX | NTE373 | TO-126 | NPN comp. transistor audio amp. driver | 1.68 | 1.64 1.57 |
| 261032CX | NTE374 | TO-126 | PNP comp. transistor audio amp. driver | 1.73 | 1.65 1.61 |
| 273666CX | NTE375 | TO-220 | NPN silicon, TV vertical output | 2.19 | 2.01 1.66 |
| 273674CX | NTE377 | TO-220 | NPN silicon, pwr amp. driver, output, switch | 2.49 | 2.39 2.16 |
| 261041CX | NTE378 | TO-220 | PNP comp. trans. pwr amp. driver output switch | 2.72 | 2.55 2.46 |
| 261059CX | NTE379 | TO-220 | NPN power amp. high-voltage switch | 7.14 | 7.09 6.99 |
| 273682CX | NTE382 | TO-92 | NPN silicon, AF driver output | 2.05 | 1.97 1.72 |
| 273691CX | NTE383 | R-245 | PNP silicon, audio frequency driver | 1.65 | 1.55 1.41 |
| 273703CX | NTE384 | TO-66 | NPN silicon high-volt. pwr amp., switch | 5.59 | 5.35 4.85 |
| 273711CX | NTE385 | TO-3 | NPN silicon, audio power amp., switch | 8.55 | 8.37 8.18 |
| 273720CX | NTE386 | TO-3 | NPN silicon, audio power amp., switch | 17.69 | 17.22 16.74 |
| 273738CX | NTE388 | TO-3 | NPN silicon, gen-purpose hi-pwr audio | 11.65 | 10.99 9.99 |
| 273746CX | NTE392 | TO-218 | NPN silicon, general-purpose amp. | 5.59 | 5.33 4.83 |
| 273754CX | NTE393 | TO-218 | PNP silicon, general-purpose amp. | 5.19 | 4.97 4.58 |
| 273762CX | NTE395 | TO-72 | PNP silicon, wide-band linear amplifier | 3.25 | 2.51 2.45 |
| 273771CX | NTE396 | TO-39 | NPN silicon, pwr amp. & hi-speed switch | 2.45 | 2.37 2.07 |
| 261067CX | NTE397 | TO-39 | PNP power amp. & high-speed switch | 2.74 | 2.51 2.23 |
| 273789CX | NTE398 | TO-220 | PNP silicon TV vertical output | 2.29 | 2.07 1.71 |
| 261075CX | NTE399 | TO-92 | NPN high-voltage video amp. | 2.75 | 2.64 2.52 |
| 261091CX | NTE473 | TO-39 | NPN RF power driver | 5.17 | 5.15 5.09 |
| 260700CX | NTE2300 | TO-3P | NPN high-voltage horizontal output | 5.12 | 5.15 4.99 |
| 272751CX | NTE2302 | TO-3P | NPN silicon, color TV horiz. deflection output | 6.29 | 6.16 6.02 |
| 272760CX | NTE2308 | TO-3P | NPN silicon, hi-volt, hi-current switch | 6.49 | 6.19 5.64 |
| 260718CX | NTE2311 | TO-218 | NPN high-voltage high-speed switch | 14.24 | 13.45 12.82 |
| 260726CX | NTE2312 | TO-220 | NPN high-voltage high-speed switch | 4.74 | 4.49 4.30 |
| 272778CX | NTE2319 | TO-3 | NPN silicon, hi-volt, hi-speed pwr switch | 6.89 | 6.73 6.56 |
| 272794CX | NTE2321 | DIP-14 | NPN silicon, quad general-purpose | 3.35 | 2.58 2.52 |
| 260734CX | NTE2322 | DIP-14 | PNP quad general-purpose | 2.82 | 2.57 2.28 |
| 260742CX | NTE2324 | TO-220 | NPN color TV horiz. deflection output | 8.55 | 8.15 7.96 |
| 272807CX | NTE2325 | TO-220 | NPN silicon, high-voltage switch | 2.53 | 2.15 2.10 |
| 272815CX | NTE2328 | — | NPN silicon complementary trans. | 6.69 | 5.34 5.21 |
| 260751CX | NTE2329 | TO-126 | PNP comp. trans. audio power output | 5.75 | 5.69 5.65 |
| 260769CX | NTE2331 | TO-220 | NPN color TV horiz. deflection output w/ damper diode | 6.85 | 6.79 6.75 |
| 272823CX | NTE2333 | TO-220 | NPN silicon, power transistor | 3.05 | 2.98 2.91 |
| 260785CX | NTE2343 | TO-220 | NPN comp. trans., darlington pwr amp., switch | 2.07 | 1.95 1.92 |

Please call our sales rep if you cannot find the NTE product replacement you are trying to find or for special pricing on large quantity orders.



Transistors (Continued)

| Part No. | Cross Ref. | Pkg. | Description | Package (see above) | | |
|-----------------|------------|-------------|--|---------------------|---------|---------|
| | | | | 1 | 10 | 25 |
| 272831CX | NTE2354 | TO-3P | NPN silicon, hi-volt horizontal output ... | \$11.69 | \$11.05 | \$10.04 |
| 272840CX | NTE2355 | TO-92 | NPN silicon w/ 10k bias resistor | .84 | .81 | .74 |
| 260793CX | NTE2344 | TO-220 | PNP comp. trans., darlington pwr amp., switch... | 1.65 | 1.55 | 1.51 |
| 260806CX | NTE2349 | TO-3 | NPN darlington trans., hi-curr. gen-purpose | 15.62 | 15.39 | 15.25 |
| 260814CX | NTE2353 | TO-220 | NPN TV horiz. deflection output w/ damper diode | 5.73 | 5.69 | 5.65 |
| 272858CX | NTE2356 | TO-92 | PNP silicon, w/ 2 10k bias resistors | .78 | .65 | .63 |
| 272874CX | NTE2361 | TO-92 | NPN silicon, high-speed switch | .62 | .60 | .55 |
| 272882CX | NTE2362 | TO-92 | PNP silicon, high-speed switch | .96 | .79 | .77 |
| 272891CX | NTE2363 | TO-92 | NPN silicon, hi-curr. gen-pur. amp./switch | .75 | .62 | .60 |
| 272903CX | NTE2365 | — | NPN silicon, hi-volt TV horiz defl. output | 14.79 | 14.44 | 14.09 |
| 273025CX | NTE2406 | SOT-23 | NPN silicon, gen-purpose amp., SMT | 1.45 | 1.39 | 1.28 |
| 273033CX | NTE2407 | SOT-23 | PNP silicon, gen-purpose amp., SMT | 1.55 | 1.49 | 1.37 |
| 260831CX | NTE2408 | SOT-23 | NPN general-purpose amp. (2/pk.) | 1.25 | 1.19 | 1.15 |
| 260849CX | NTE2409 | SOT-23 | PNP general-purpose amp. (2/pk.) | 1.25 | 1.19 | 1.15 |
| 273050CX | NTE2430 | SOT-89 | NPN silicon, high-volt amp./switch | 1.75 | 1.71 | 1.67 |
| 273068CX | NTE2431 | SOT-89 | PNP silicon, high-volt amp./switch | 1.59 | 1.55 | 1.51 |
| 273092CX | NTE2501 | TO-126ML | NPN silicon, high-volt for video output | 1.75 | 1.66 | 1.51 |
| 273105CX | NTE2507 | TO-220 | NPN silicon high-freq. video output | 4.95 | 4.84 | 4.72 |
| 273113CX | NTE2508 | TO-126ML | NPN video output for HDTV | 1.49 | 1.45 | 1.41 |
| 273148CX | NTE2521 | TO-126ML | NPN video output for HDTV | 5.15 | 4.09 | 3.99 |
| 260873CX | NTE2543 | TO-220 | NPN darlington motor/relay driver | 3.29 | 3.25 | 3.19 |
| 273164CX | NTE2582 | TO-220 | NPN silicon hi-speed switching reg. | 4.19 | 4.10 | 4.01 |
| 275012CX | NTE6401 | TO-18 | Silicon unijunction | 5.65 | 5.51 | 5.37 |
| 275021CX | NTE6402 | TO-98/TO-92 | Silicon programmable unijunction | 1.39 | 1.35 | 1.18 |
| 275047CX | NTE6409 | TO-18 | Silicon unijunction | 6.05 | 5.92 | 5.78 |
| 261121CX | NTE6410 | TO-92 | Unijunction transistor | 4.79 | 4.75 | 4.69 |
| 272487CX | NTE16004 | TO-39 | PNP silicon, hi-current, gen-purpose | 1.79 | 1.75 | 1.70 |

JFETs

| Part No. | Cross Ref. | Pkg. | Description | Package (see above) | | |
|-----------------|------------|--------|--|---------------------|--------|--------|
| | | | | 1 | 10 | 25 |
| 272321CX | NTE133 | TO-106 | N-ch JFET general-purpose AF amp. | \$.91 | \$.89 | \$.87 |
| 273578CX | NTE312 | TO-92 | N-ch JFET | 1.25 | 1.23 | 1.20 |
| 273631CX | NTE326 | TO-92 | P-ch JFET general-purpose AF amp. | 1.45 | 1.39 | 1.26 |
| 273906CX | NTE451 | TO-92 | N-ch JFET UHF/VHF amplifier | 1.65 | 1.61 | 1.57 |
| 260427CX | NTE457 | TO-92 | N-ch JFET general-purpose | 1.04 | .99 | .95 |
| 260435CX | NTE458 | TO-92 | N-ch JFET low-noise, audio-freq. amp. | 1.70 | 1.65 | 1.59 |
| 273949CX | NTE466 | TO-18 | N-ch JFET chopper, high-speed switch | 2.79 | 2.56 | 2.33 |

MOSFETs

| Part No. | Cross Ref. | Pkg. | Description | Package (see above) | | |
|-----------------|------------|--------|---|---------------------|--------|--------|
| | | | | 1 | 10 | 25 |
| 275055CX | NTE66 | TO-220 | N-ch enhancement mode hi-speed switch | \$6.89 | \$6.58 | \$5.99 |
| 260443CX | NTE222 | TO-39 | Dual gate N-channel MOSFET | 10.56 | 9.59 | 8.95 |
| 273957CX | NTE490 | TO-92 | N-ch enhancement mode hi-speed switch | .81 | .80 | .78 |
| 273981CX | NTE491 | TO-92 | N-ch enhancement mode hi-speed switch | .63 | .62 | .60 |
| 272911CX | NTE2371 | TO-220 | P-ch enhancement mode | 6.89 | 6.75 | 6.61 |
| 272920CX | NTE2374 | TO-220 | N-ch enhancement mode | 4.29 | 4.00 | 3.70 |
| 272938CX | NTE2377 | TO-3P | N-ch enhancement mode hi-speed switch .. | 10.85 | 10.55 | 10.24 |
| 272946CX | NTE2379 | TO-220 | N-ch enhancement mode | 4.09 | 4.00 | 3.91 |
| 272954CX | NTE2382 | TO-220 | N-ch enhancement mode hi-speed switch | 3.59 | 3.43 | 3.11 |
| 272962CX | NTE2383 | TO-220 | P-ch enhancement mode hi-speed switch | 7.89 | 7.54 | 6.86 |
| 272971CX | NTE2385 | TO-220 | N-ch enhancement mode hi-speed switch | 5.58 | 4.77 | 4.23 |
| 272997CX | NTE2388 | TO-220 | N-ch enhancement mode hi-speed switch | 6.10 | 5.67 | 5.04 |
| 260451CX | NTE2389 | TO-220 | N-ch enhancement mode hi-speed switch | 5.35 | 5.15 | 4.91 |
| 260460CX | NTE2394 | TO-126 | N-ch enhancement mode hi-speed switch .. | 11.25 | 11.19 | 11.09 |
| 260478CX | NTE2395 | TO-220 | N-ch enhancement mode hi-speed switch | 5.60 | 5.39 | 5.15 |
| 273009CX | NTE2396 | TO-220 | N-ch enhancement mode hi-speed switch | 3.99 | 3.79 | 3.70 |
| 260486CX | NTE2397 | TO-220 | N-ch enhancement mode hi-speed switch | 5.60 | 5.39 | 5.15 |
| 260494CX | NTE2398 | TO-220 | N-ch enhancement mode hi-speed switch | 3.75 | 3.69 | 3.65 |
| 273279CX | NTE2987 | TO-220 | N-ch enhancement mode hi-speed switch | 6.59 | 6.44 | 6.29 |

Diodes

| Part No. | Cross Ref. | Pkg. | Description | Package (see above) | | |
|-----------------|------------|--------|---|---------------------|--------|--------|
| | | | | 1 | 10 | 25 |
| 259418CX | NTE109 | DO-7 | Germanium fast switching | \$1.18 | \$1.14 | \$1.10 |
| 272268CX | NTE110A | DO-7 | Germanium general-purpose | 1.09 | .99 | .89 |
| 272276CX | NTE110MP | DO-7 | Germanium point contact | 1.55 | 1.47 | 1.39 |
| 259426CX | NTE112 | DO-35 | Silicon small signal schottky | 1.48 | 1.34 | 1.20 |
| 259434CX | NTE177 | DO-35 | Silicon general-purpose | .30 | .28 | .26 |
| 259442CX | NTE519 | DO-7 | Silicon ultra-fast switch | .34 | .31 | .29 |
| 274431CX | NTE525 | DO-41 | Silicon high-volt, fast-recovery switch | 2.55 | 2.44 | 2.20 |
| 274634CX | NTE553 | DO-35 | Schottky barrier diode | .91 | .89 | .87 |
| 259451CX | NTE570 | DO-7 | Silicon controlled avalanche diode | 1.23 | 1.19 | 1.15 |
| 259469CX | NTE583 | DO-7 | Schottky RF switch | 1.27 | 1.22 | 1.19 |
| 274853CX | NTE585 | DO-41 | Schottky barrier, fast switching | .92 | .91 | .78 |
| 274861CX | NTE586 | DO-27 | Schottky barrier, fast switching | 1.75 | 1.67 | 1.59 |
| 274870CX | NTE587 | DO-41 | Silicon ultra-fast switching | .82 | .80 | .69 |
| 259477CX | NTE588 | DO-7 | Silicon 200V, 3A fast switch | 1.25 | 1.21 | 1.16 |
| 274917CX | NTE593 | SOT-23 | Silicon, high-speed switch | 1.75 | 1.68 | 1.59 |
| 274925CX | NTE596 | SOT-23 | Silicon, dual diode, common anode | 1.69 | 1.65 | 1.61 |
| 259485CX | NTE618 | — | Silicon tuning diode for AM radio, varactor ... | 1.79 | 1.75 | 1.69 |

Zener Diodes

| Part No. | Cross Ref. | Pkg. | Voltage | Wattage | Qty. | Package (see above) | | |
|-----------------|------------|-------|---------|---------|------------|---------------------|--------|--------|
| | | | | | | 1 | 10 | 25 |
| 274028CX | NTE5002A | DO-35 | 2.7V | 1/2W | 1/pk. | \$.73 | \$.72 | \$.70 |
| 274036CX | NTE5004A | DO-35 | 3V | 1/2W | 1/pk. | .73 | .72 | .70 |
| 274044CX | NTE5005A | DO-35 | 3.3V | 1/2W | 1/pk. | .73 | .72 | .70 |
| 274052CX | NTE5007A | DO-35 | 3.9V | 1/2W | 1/pk. | .51 | .48 | .44 |
| 274061CX | NTE5009A | DO-35 | 4.7V | 1/2W | 1/pk. | .51 | .48 | .44 |
| 259565CX | NTE5010A | DO-35 | 5.1V | 1/2W | 1/pk. | .39 | .36 | .33 |
| 274079CX | NTE5011A | DO-35 | 5.6V | 1/2W | 1/pk. | .51 | .48 | .43 |
| 274087CX | NTE5012A | DO-35 | 6V | 1/2W | 1/pk. | .73 | .72 | .70 |
| 274095CX | NTE5013A | DO-35 | 6.2V | 1/2W | 1/pk. | .51 | .48 | .44 |
| 274108CX | NTE5014A | DO-35 | 6.8V | 1/2W | 1/pk. | .51 | .48 | .44 |
| 274116CX | NTE5015A | DO-35 | 7.5V | 1/2W | 1/pk. | .73 | .72 | .70 |
| 274124CX | NTE5018A | DO-35 | 9.1V | 1/2W | 1/pk. | .73 | .72 | .70 |
| 274132CX | NTE5019A | DO-35 | 10V | 1/2W | 1/pk. | .49 | .48 | .42 |
| 259573CX | NTE5021A | DO-35 | 12V | 1/2W | 1/pk. | .49 | .45 | .40 |
| 259581CX | NTE5024A | DO-35 | 15V | 1/2W | 1/pk. | .49 | .48 | .47 |
| 274141CX | NTE5031A | DO-35 | 24V | 1/2W | 1/pk. | .73 | .72 | .70 |
| 274159CX | NTE5035A | DO-35 | 30V | 1/2W | 1/pk. | .73 | .72 | .70 |
| 274167CX | NTE5057A | DO-35 | 170V | 1/2W | 1/pk. | .73 | .72 | .70 |
| 272330CX | NTE134A | DO-35 | 3.6V | 1W | 2/pk. | .52 | .50 | .48 |
| 259493CX | NTE135A | DO-35 | 5.1V | 1W | 2/pk. | .53 | .51 | .49 |
| 259506CX | NTE136A | DO-35 | 5.6V | 1W | 2/pk. | .44 | .41 | .39 |
| 272348CX | NTE137A | DO-35 | 6.2V | 1W | 2/pk. | .56 | .54 | .47 |
| 259514CX | NTE138A | DO-35 | 7.5V | 1W | 2/pk. | .53 | .50 | .47 |
| 272356CX | NTE139A | DO-35 | 9.1V | 1W | 2/pk. | .52 | .49 | .47 |
| 272364CX | NTE140A | DO-35 | 10V | 1W | 2/pk. | .52 | .50 | .47 |
| 259522CX | NTE142A | DO-35 | 12V | 1W | 2/pk. | .56 | .55 | .53 |
| 259531CX | NTE143A | DO-35 | 13V | 1W | 2/pk. | .44 | .41 | .39 |
| 272372CX | NTE144A | DO-35 | 14V | 1W | 2/pk. | .63 | .60 | .57 |
| 259549CX | NTE145A | DO-35 | 15V | 1W | 2/pk. | .44 | .41 | .39 |
| 272381CX | NTE146A | DO-35 | 27V | 1W | 2/pk. | .51 | .49 | .44 |
| 259557CX | NTE147A | DO-35 | 33V | 1W | 2/pk. | .44 | .41 | .39 |
| 274183CX | NTE5066A | DO-35 | 3.3V | 1W | 2/pk. | 2.15 | 2.12 | 2.08 |
| 274191CX | NTE5069A | DO-35 | 4.7V | 1W | 2/pk. | 1.45 | 1.39 | 1.26 |
| 274204CX | NTE5071A | DO-35 | 6.8V | 1W | 2/pk. | 1.45 | 1.39 | 1.26 |
| 274212CX | NTE5072A | DO-35 | 8.2V | 1W | 2/pk. | 1.85 | 1.81 | 1.77 |
| 274221CX | NTE5075A | DO-35 | 16V | 1W | 2/pk. | 1.85 | 1.81 | 1.77 |
| 259590CX | NTE5077A | DO-35 | 18V | 1W | 2/pk. | 1.42 | 1.38 | 1.32 |
| 274239CX | NTE5079A | DO-35 | 20.0V | 1W | 2/PK. | 1.45 | 1.39 | 1.26 |
| 274247CX | NTE5080A | DO-35 | 22.0V | 1W | 2/pk. | 2.15 | 2.12 | 2.08 |



Please call our sales rep if you cannot find the NTE product replacement you are trying to find or for special pricing on large quantity orders.

Zener Diodes (Continued)

Package (see pg 34)

| Part No. | Cross Ref. | Pkg. | Voltage | Wattage | Qty. | 1 | 10 | 25 |
|----------|------------|-------|---------|---------|-------|--------|--------|--------|
| 274255CX | NTE5081A | DO-35 | 24V | 1W | 2/pk. | \$1.85 | \$1.81 | \$1.77 |
| 274263CX | NTE5084A | DO-35 | 30V | 1W | 2/pk. | 1.45 | 1.39 | 1.26 |
| 274271CX | NTE5085A | DO-35 | 36V | 1W | 2/pk. | 1.85 | 1.81 | 1.77 |
| 274280CX | NTE5093A | DO-35 | 75V | 1W | 2/pk. | 1.85 | 1.81 | 1.77 |
| 274298CX | NTE5096A | DO-35 | 100V | 1W | 2/pk. | 1.85 | 1.81 | 1.77 |
| 274319CX | NTE5100A | DO-35 | 150V | 1W | 2/pk. | 1.45 | 1.38 | 1.20 |
| 259602CX | NTE5105A | DO-35 | 200V | 1W | 2/pk. | 1.86 | 1.78 | 1.70 |
| 274327CX | NTE5116A | DO-35 | 5.1V | 5W | 1/pk. | 2.05 | 2.00 | 1.95 |
| 274335CX | NTE5127A | DO-35 | 12V | 5W | 1/pk. | 1.45 | 1.39 | 1.26 |
| 259611CX | NTE5130A | DO-35 | 15V | 5W | 1/pk. | 1.46 | 1.39 | 1.32 |
| 274343CX | NTE5131A | DO-35 | 16V | 5W | 1/pk. | 2.05 | 2.00 | 1.95 |
| 274351CX | NTE5133A | DO-35 | 18V | 5W | 1/pk. | 2.05 | 2.00 | 1.95 |
| 274360CX | NTE5137A | DO-35 | 24V | 5W | 1/pk. | 1.45 | 1.38 | 1.20 |
| 274378CX | NTE5139A | DO-35 | 27V | 5W | 1/pk. | 2.05 | 1.99 | 1.95 |
| 259629CX | NTE5141A | DO-35 | 30V | 5W | 1/pk. | 2.05 | 2.01 | 1.97 |
| 274386CX | NTE5142A | DO-35 | 33V | 5W | 1/pk. | 1.25 | 1.15 | 1.01 |
| 274394CX | NTE5147A | DO-35 | 51V | 5W | 1/pk. | 2.05 | 1.99 | 1.95 |
| 259637CX | NTE5164A | DO-35 | 180V | 5W | 1/pk. | 2.05 | 2.01 | 1.97 |

Transient Voltage Suppressors

Package (see pg 34)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 25 |
|----------|------------|-------|---------------------------|--------|--------|--------|
| 273965CX | NTE4902 | DO-15 | 6.45V _{BR} 5.80V | \$3.39 | \$3.32 | \$3.23 |
| 273973CX | NTE4903 | DO-15 | 6.12V _{BR} 5.50V | 3.39 | 3.31 | 3.22 |
| 273990CX | NTE4928 | DO-15 | 19V _{BR} 17.1V | 2.39 | 2.33 | 2.27 |
| 274001CX | NTE4951 | DO-15 | 48.5V _{BR} 43.6V | 3.39 | 3.31 | 3.22 |
| 274010CX | NTE4993 | DO-15 | 304V _{BR} 273V | 1.83 | 1.50 | 1.46 |

Rectifiers

Package (see pg 34)

| Part No. | Cross Ref. | Pkg. | Description | PRV | AFC | 1 | 10 | 25 |
|----------|------------|----------|-------------|--------|------|--------|--------|--------|
| 259813CX | NTE116 | DO-41 | Rectifier | 600V | 1A | \$4.49 | \$4.45 | \$4.42 |
| 259821CX | NTE125 | DO-41 | Rectifier | 1000V | 2.5A | .50 | .48 | .45 |
| 259830CX | NTE156 | DO-41 | Rectifier | 1000V | 3A | .67 | .63 | .60 |
| 272436CX | NTE156A | — | Rectifier | 1000V | 3A | .72 | .67 | .61 |
| 259645CX | NTE506 | DO-41 | Rectifier | 1400V | 2A | 1.10 | 1.06 | 1.02 |
| 274407CX | NTE517 | — | Rectifier | 15000V | 200A | 5.05 | 4.95 | 4.85 |
| 259848CX | NTE541 | DO-35 | Rectifier | 8400V | 50A | 8.37 | 8.29 | 8.25 |
| 259856CX | NTE552 | DO-41 | Rectifier | 600V | 1A | .93 | .90 | .87 |
| 259864CX | NTE558 | DO-41 | Rectifier | 1500V | 1A | 1.68 | 1.63 | 1.57 |
| 259872CX | NTE569 | DO-41 | Rectifier | 600V | 3A | 1.12 | 1.03 | .95 |
| 274781CX | NTE571 | — | Rectifier | 1000V | 2.9A | .64 | .61 | .58 |
| 274790CX | NTE572 | — | Rectifier | 1000V | 6A | 1.05 | 1.03 | 1.00 |
| 259881CX | NTE574 | DO-41 | Rectifier | 400V | 1A | .58 | .53 | .48 |
| 274811CX | NTE575 | DO-41 | Rectifier | 1000V | 1A | .67 | .65 | .56 |
| 259899CX | NTE576 | DO-41 | Rectifier | 400V | 5A | 1.86 | 1.79 | 1.73 |
| 274829CX | NTE579 | DO-27 | Rectifier | 90V | 3A | 2.59 | 2.39 | 2.19 |
| 259901CX | NTE577 | DO-41 | Rectifier | 1000V | 5A | 3.58 | 3.45 | 3.33 |
| 259910CX | NTE580 | SOD57 | Rectifier | 600V | 3A | 2.71 | 2.59 | 2.47 |
| 274933CX | NTE597 | TO-220 | Rectifier | 200V | 8A | 1.69 | 1.61 | 1.53 |
| 260021CX | NTE598 | TO-220/2 | Rectifier | 600V | 8A | 2.16 | 2.11 | 2.08 |
| 274992CX | NTE622 | DO-213AA | Rectifier | 400V | 0.5A | 2.29 | 2.26 | 2.22 |
| 274802CX | NTE5740 | — | Rectifier | 800V | 30A | 36.79 | 29.43 | 25.75 |
| 259928CX | NTE5800 | DO-41 | Rectifier | 50V | 3A | .33 | .31 | .30 |
| 259936CX | NTE5801 | DO-41 | Rectifier | 100V | 3A | .48 | .45 | .44 |
| 274837CX | NTE5802 | DO-27 | Rectifier | 200V | 3A | .58 | .53 | .50 |
| 259944CX | NTE5804 | DO-41 | Rectifier | 400V | 3A | .60 | .56 | .54 |
| 259952CX | NTE5806 | DO-41 | Rectifier | 600V | 3A | .94 | .92 | .88 |
| 274845CX | NTE5808 | DO-27 | Rectifier | 800V | 3A | 1.19 | 1.10 | .99 |
| 259961CX | NTE5809 | DO-41 | Rectifier | 1000V | 3A | 1.39 | 1.31 | 1.25 |
| 259979CX | NTE5812 | T6L | Rectifier | 100V | 6A | .91 | .87 | .84 |
| 259987CX | NTE5814 | T6L | Rectifier | 400V | 6A | 1.52 | 1.45 | 1.40 |
| 259995CX | NTE5815 | T6L | Rectifier | 600V | 6A | 2.49 | 2.27 | 2.15 |
| 260005CX | NTE5817 | T6L | Rectifier | 1000V | 6A | 2.28 | 2.14 | 2.04 |
| 260013CX | NTE5870 | DO-4 | Rectifier | 50V | 12A | 2.60 | 2.49 | 2.38 |
| 274888CX | NTE5874 | DO-4 | Rectifier | 200V | 12A | 3.35 | 2.82 | 2.50 |
| 274896CX | NTE5882 | DO-4 | Rectifier | 600V | 12A | 4.49 | 4.27 | 4.05 |
| 274909CX | NTE5890 | DO-4 | Rectifier | 1000V | 12A | 8.69 | 7.38 | 6.55 |
| 274941CX | NTE5980 | DO-4 | Rectifier | 50V | 40A | 3.89 | 3.80 | 3.70 |

Rectifiers (Continued)

Package (see pgs 31 & 34)

| Part No. | Cross Ref. | Pkg. | Description | PRV | AFC | 1 | 10 | 25 |
|----------|------------|--------|------------------|-------|----------------|--------|--------|--------|
| 274950CX | NTE5994 | DO-4 | Rectifier | 600V | 40A | \$8.65 | \$8.45 | \$8.25 |
| 274968CX | NTE5995 | DO-4 | Rectifier | 600V | 40A | 8.65 | 8.45 | 8.25 |
| 260030CX | NTE6013 | TO-220 | Rectifier | 600V | 12.7A isolated | 3.77 | 3.69 | 3.61 |
| 274984CX | NTE6154 | DO-8 | Rectifier | 400V | 150A | 26.59 | 25.93 | 25.28 |
| 260048CX | NTE6240 | TO-220 | Rectifier | 200V | 16A | 3.94 | 3.77 | 3.59 |
| 275004CX | NTE6244 | TO-220 | Rectifier, dual | 200V | 16A | 4.89 | 4.78 | 4.67 |
| 259653CX | NTE166 | BR8D | Bridge rectifier | 100V | 2A | 1.10 | 1.06 | 1.02 |
| 259661CX | NTE167 | BR8D | Bridge rectifier | 200V | 2A | 1.75 | 1.69 | 1.62 |
| 259670CX | NTE168 | BR8D | Bridge rectifier | 400V | 2A | 1.93 | 1.86 | 1.79 |
| 272508CX | NTE169 | BR8D | Bridge rectifier | 600V | 2A | 2.09 | 2.02 | 1.78 |
| 259688CX | NTE170 | BR8D | Bridge rectifier | 1000V | 2A | 2.82 | 2.79 | 2.75 |
| 259696CX | NTE5304 | WOM | Bridge rectifier | 400V | 1.5A | 1.32 | 1.28 | 1.23 |
| 259709CX | NTE5305 | WOM | Bridge rectifier | 600V | 1.5A | 1.47 | 1.42 | 1.39 |
| 274458CX | NTE5309 | BR8D | Bridge rectifier | 200V | 4A | 2.79 | 2.73 | 2.66 |
| 274466CX | NTE5310 | BR8D | Bridge rectifier | 600V | 4A | 2.80 | 2.42 | 2.22 |
| 259717CX | NTE5312 | GBPC | Bridge rectifier | 100V | 8A | 3.88 | 3.70 | 3.53 |
| 259725CX | NTE5313 | GBPC | Bridge rectifier | 200V | 8A | 3.82 | 3.65 | 3.48 |
| 259733CX | NTE5314 | GBPC | Bridge rectifier | 400V | 8A | 3.93 | 3.74 | 3.59 |
| 274474CX | NTE5315 | GBPC | Bridge rectifier | 600V | 8A | 4.45 | 4.08 | 3.63 |
| 274482CX | NTE5318 | — | Bridge rectifier | 200V | 4A | 2.19 | 2.14 | 2.08 |
| 259741CX | NTE5322 | TB35 | Bridge rectifier | 200V | 25A | 5.64 | 5.38 | 5.13 |
| 274491CX | NTE5324 | TB35 | Bridge rectifier | 400V | 25A | 5.99 | 5.84 | 5.69 |
| 259750CX | NTE5326 | TB35 | Bridge rectifier | 600V | 25A | 7.59 | 7.20 | 6.90 |
| 274503CX | NTE5328 | TB35 | Bridge rectifier | 1000V | 25A | 7.89 | 7.69 | 7.50 |
| 259768CX | NTE5329 | BR8D | Bridge rectifier | 200V | 6A | 3.63 | 3.46 | 3.30 |
| 274511CX | NTE5330 | BR8D | Bridge rectifier | 600V | 6A | 5.15 | 5.02 | 4.90 |
| 259776CX | NTE5332 | DIP-4 | Bridge rectifier | 600V | 1A | 1.52 | 1.45 | 1.39 |
| 259784CX | NTE5340 | — | Bridge rectifier | 200V | 40A | 9.00 | 8.57 | 8.17 |
| 259792CX | NTE5342 | — | Bridge rectifier | 600V | 40A | 11.37 | 10.79 | 10.24 |
| 259805CX | NTE5344 | — | Bridge rectifier | 1000V | 40A | 12.78 | 12.29 | 11.80 |

Silicon Controlled Rectifiers (SCR)

Package (see pg 34)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 25 |
|----------|------------|--------|---------------------------|--------|--------|--------|
| 274538CX | NTE5400 | TO-92 | 30 VRM, 0.8A | \$.79 | \$.62 | \$.60 |
| 260056CX | NTE5401 | TO-92 | 60 VRM 0.8A | .97 | .91 | .87 |
| 260064CX | NTE5402 | TO-92 | 100 VRM 0.8A | .97 | .89 | .78 |
| 260072CX | NTE5404 | TO-92 | 200 VRM 0.8A | 1.33 | 1.29 | 1.25 |
| 274546CX | NTE5405 | TO-92 | 400 VRM, 0.8A | 2.19 | 2.14 | 2.08 |
| 274554CX | NTE5414 | TO-126 | 200 VRM, 4.0A | 1.65 | 1.61 | 1.57 |
| 274562CX | NTE5424 | TO-220 | 400 VRM, 4.7A, high speed | 6.45 | 6.31 | 6.17 |
| 274571CX | NTE5426 | TO-220 | 400 VRM, 10A | 2.59 | 2.48 | 2.26 |
| 274589CX | NTE5437 | TO-220 | 400 VRM, 8A | 2.15 | 2.10 | 2.04 |
| 274597CX | NTE5455 | TO-202 | 200 VRM, 4.0A | 1.19 | 1.12 | 1.02 |
| 260081CX | NTE5457 | TO-202 | 400 VRM 4A | 1.33 | 1.29 | 1.25 |
| 260099CX | NTE5458 | TO-202 | 600 PRV 4A | 2.03 | 1.99 | 1.94 |
| 274600CX | NTE5460 | TO-220 | 800 VRM, 25A | 10.29 | 10.03 | 9.76 |
| 274618CX | NTE5465 | TO-202 | 400 VRM, 10A | 2.75 | 2.59 | 2.36 |
| 274626CX | NTE5466 | TO-202 | 600 VRM, 10A | 4.19 | 4.00 | 3.80 |
| 274642CX | NTE5547 | TO-48 | 600 VRM, 35A | 15.65 | 15.24 | 14.83 |

Diacs/Triacs/Sidacs/TVS

Package (see pg 34)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 25 |
|----------|------------|--------|-----------------------------------|--------|--------|--------|
| 261278CX | NTE4900 | DO-35 | TVS, 5.0V | \$2.18 | \$2.15 | \$2.09 |
| 274693CX | NTE5608 | TO-220 | Triac, 400 VRM, 8A, gate | 2.55 | 2.33 | 1.93 |
| 274706CX | NTE5609 | TO-220 | Triac, 600 VRM, 8A, gate | 3.45 | 3.37 | 3.28 |
| 274714CX | NTE5620 | TO-220 | Triac, 800 VRM, 8A, isolated | 5.33 | 4.62 | 4.50 |
| 261147CX | NTE5629 | TO-202 | Triac, 400 VRM, 4A | 1.98 | 1.89 | 1.81 |
| 274722CX | NTE5635 | TO-220 | Triac, 400 VRM, 10A | 3.49 | 3.22 | 2.86 |
| 274731CX | NTE5638 | TO-220 | Triac, 400 VRM, 8A isolated tab | 3.05 | 2.97 | 2.89 |
| 274749CX | NTE5645 | TO-220 | Triac, 600 VRM, 10A, isolated tab | 3.69 | 3.60 | 3.51 |
| 261155CX | NTE5656 | TO-9 | Triac, 400 VRM, 0.8A | 1.08 | 1.05 | .99 |
| 274757CX | NTE5671 | TO-220 | Triac, 800 VRM, 20A, isolated | 5.55 | 5.45 | 5.34 |
| 274765CX | NTE5679 | — | Triac, 600 VRM, 40A | 17.19 | 16.34 | 15.52 |
| 260110CX | NTE6404 | TO-89 | SUS, Si, 1.0A | 8.86 | 8.79 | 8.75 |
| 259400CX | NTE6408 | DO-35 | Diac | .94 | .90 | .87 |
| 260101CX | NTE6419 | — | Sidac, 110-125V | 2.06 | 1.99 | 1.91 |

Please call our sales rep if you cannot find the NTE product replacement you are trying to find or for special pricing on large quantity orders.



Diacs/Triacs/Sidacs/TVS (Continued)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 25 |
|-----------------|------------|--------|---------------------|--------|--------|--------|
| 274651CX | NTE56008 | TO-220 | Triac, 600 VRM, 15A | \$5.09 | \$4.86 | \$4.42 |
| 274669CX | NTE56020 | TO-220 | Triac, 400 VRM, 25A | 7.45 | 7.28 | 7.10 |
| 274677CX | NTE56024 | TO-48 | Triac, 400 VRM, 40A | 13.75 | 13.38 | 13.00 |
| 274685CX | NTE56026 | TO-48 | Triac, 600 VRM, 40A | 15.55 | 15.13 | 14.71 |

Varistors (MOV)

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 25 |
|-----------------|------------|-------|--|--------|--------|--------|
| 272680CX | NTE1V010 | 8.5mm | 10V _{RMS} , 12VDC, 0.8 joules | \$1.07 | \$.87 | \$.85 |
| 261286CX | NTE1V020 | 8.5mm | 20V _{RMS} , 26VDC, 1.5 joules | 1.03 | .99 | .95 |
| 272698CX | NTE1V030 | 8.5mm | 30V _{RMS} , 38VDC, 2.3 joules | 1.19 | 1.15 | 1.11 |
| 261294CX | NTE1V130 | 8.5mm | 135V _{RMS} , 180VDC, 10 joules | 1.08 | 1.03 | .99 |
| 273287CX | NTE2V010 | 16mm | 10V _{RMS} , 12VDC, 3.5 joules | 1.85 | 1.81 | 1.76 |
| 273295CX | NTE2V025 | 16mm | 25V _{RMS} , 31VDC, 7.0 joules | 1.85 | 1.81 | 1.76 |
| 273308CX | NTE2V030 | 16mm | 30V _{RMS} , 38VDC, 8.5 joules | 1.85 | 1.81 | 1.76 |
| 273316CX | NTE2V035 | 16mm | 35V _{RMS} , 45VDC, 10 joules | 1.69 | 1.40 | 1.37 |
| 273324CX | NTE2V095 | 16mm | 95V _{RMS} , 125VDC, 29 joules | 1.85 | 1.81 | 1.76 |
| 261307CX | NTE2V130 | 16mm | 135V _{RMS} , 180VDC, 39 joules | 1.85 | 1.79 | 1.75 |
| 273332CX | NTE2V150 | 16mm | 150V _{RMS} , 210VDC, 40 joules | 2.19 | 2.14 | 2.08 |
| 261315CX | NTE2V250 | 16mm | 240V _{RMS} , 320VDC, 70 joules | 2.66 | 2.54 | 2.41 |
| 273341CX | NTE2V275 | 16mm | 275V _{RMS} , 330VDC, 72 joules | 2.69 | 2.62 | 2.55 |
| 274415CX | NTE524V13 | 23mm | 130V _{RMS} , 180VDC, 72 joules | 2.65 | 2.40 | 1.99 |
| 274423CX | NTE524V15 | 23mm | 150V _{RMS} , 210VDC, 80 joules | 2.75 | 2.68 | 2.61 |
| 261323CX | NTE524V25 | 23mm | 240V _{RMS} , 320VDC, 129 joules | 2.40 | 2.35 | 2.29 |

Thermal Fuses

| Part No. | Cross Ref. | Description | Dimensions | 1 | 10 | 25 |
|-----------------|------------|------------------|-------------------|--------|--------|--------|
| 275346CX | NTE8070 | TCO 72°C, 162°F | 3.2"L x .157"Dia. | \$1.15 | \$1.12 | \$1.09 |
| 261163CX | NTE8076 | TCO 77°C, 171°F | 3.2"L x .157"Dia. | 1.13 | 1.09 | 1.05 |
| 275354CX | NTE8081 | TCO 84°C, 184°F | 3.2"L x .157"Dia. | 1.15 | 1.11 | 1.07 |
| 261171CX | NTE8085 | TCO 87°C, 189°F | 3.2"L x .157"Dia. | 1.27 | 1.23 | 1.18 |
| 261180CX | NTE8090 | TCO 93°C, 200°F | 3.2"L x .157"Dia. | 1.13 | 1.09 | 1.05 |
| 261198CX | NTE8096 | TCO 98°C, 208°F | 3.2"L x .157"Dia. | 1.13 | 1.09 | 1.05 |
| 261201CX | NTE8098 | TCO 100°C, 212°F | 3.2"L x .157"Dia. | 1.13 | 1.09 | 1.05 |
| 261219CX | NTE8103 | TCO 104°C, 220°F | 3.2"L x .157"Dia. | 1.13 | 1.09 | 1.05 |
| 275362CX | NTE8108 | TCO 109°C, 229°F | 3.2"L x .157"Dia. | 1.15 | 1.05 | .95 |
| 275371CX | NTE8115 | TCO 117°C, 243°F | 3.2"L x .157"Dia. | 1.19 | 1.16 | 1.13 |
| 261227CX | NTE8118 | TCO 121°C, 250°F | 3.2"L x .157"Dia. | 1.13 | 1.09 | 1.05 |
| 275389CX | NTE8125 | TCO 128°C, 263°F | 3.2"L x .157"Dia. | 1.15 | 1.11 | 1.07 |
| 261235CX | NTE8139 | TCO 141°C, 286°F | 3.2"L x .157"Dia. | 1.27 | 1.23 | 1.18 |
| 275397CX | NTE8149 | TCO 152°C, 306°F | 3.2"L x .157"Dia. | 1.19 | 1.11 | 1.03 |
| 275400CX | NTE8167 | TCO 169°C, 336°F | 3.2"L x .157"Dia. | 1.15 | 1.05 | .95 |
| 261243CX | NTE8181 | TCO 184°C, 364°F | 3.2"L x .157"Dia. | 1.13 | 1.09 | 1.05 |
| 275418CX | NTE8182 | TCO 192°C, 378°F | 3.2"L x .157"Dia. | 2.69 | 2.59 | 2.30 |
| 261251CX | NTE8213 | TCO 216°C, 421°F | 3.2"L x .157"Dia. | 1.13 | 1.09 | 1.05 |
| 275434CX | NTE8226 | TCO 228°C, 443°F | 3.2"L x .157"Dia. | 1.15 | 1.11 | 1.07 |
| 261260CX | NTE8242 | TCO 240°C, 464°F | 3.2"L x .157"Dia. | 1.13 | 1.09 | 1.05 |

LEDs

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 25 |
|-----------------|------------|-------|---|--------|--------|--------|
| 260363CX | NTE1866 | SIP-9 | 5-point LED VU scale bar level meter driver | \$2.01 | \$1.96 | \$1.93 |
| 273359CX | NTE3007 | T1 | Red, 4/pk. | 1.65 | 1.61 | 1.57 |
| 273367CX | NTE3008 | T1 | Red, 2/pk. | 1.03 | .84 | .82 |
| 273375CX | NTE3010 | T1 | Green, 2/pk. | 1.15 | 1.11 | 1.06 |
| 273383CX | NTE3020 | T1¾ | Red, 2/pk. | 1.01 | .84 | .82 |
| 273391CX | NTE3021 | T1¾ | Yellow, 2/pk. | 1.22 | .99 | .97 |
| 273404CX | NTE3022 | T1¾ | Red, 2/pk. | 1.10 | .90 | .88 |
| 260371CX | NTE3024* | T1¾ | Green 5mm, 2.1Vf@20mA, 8.7mcd@10mA, 565nm | 1.31 | 1.24 | 1.19 |
| 273412CX | NTE3028 | — | Infrared, PN, GAAS | 4.99 | 4.87 | 4.75 |
| 273586CX | NTE3188 | T1¾ | LED-white clear | 2.25 | 2.07 | 1.88 |

* 2 ea. per pack

Optoisolators

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 25 |
|-----------------|------------|-------|---------------------------------------|---------|---------|---------|
| 273421CX | NTE3032 | TO-18 | NPN phototransistor detector | \$11.15 | \$10.84 | \$10.52 |
| 273439CX | NTE3034A | — | Phototransistor detector | 1.59 | 1.55 | 1.51 |
| 273447CX | NTE3037 | TO-18 | NPN phototransistor detector | 4.35 | 4.26 | 4.16 |
| 260380CX | NTE3040 | DIP-6 | NPN transistor output, 1.5V @ 10mA | 1.73 | 1.68 | 1.61 |
| 260398CX | NTE3041 | DIP-6 | NPN transistor output, 1.15V @ 10mA | 1.75 | 1.69 | 1.63 |
| 273455CX | NTE3042 | DIP-6 | NPN transistor | 1.65 | 1.60 | 1.55 |
| 260401CX | NTE3044 | DIP-6 | NPN darl. trans. output, 1.15V @ 10mA | 2.33 | 2.25 | 2.19 |
| 273463CX | NTE3045 | DIP-6 | Silicon darlington | 2.45 | 2.39 | 2.32 |
| 260419CX | NTE3047 | DIP-6 | Triac driver output, 1.15V @ 10mA | 2.41 | 2.04 | 1.95 |
| 273471CX | NTE3048 | DIP-6 | Triac driver output | 3.19 | 2.89 | 2.39 |
| 273498CX | NTE3083 | DIP-6 | Optoisolator transistor | 2.45 | 2.39 | 2.32 |
| 273501CX | NTE3084 | DIP-6 | NPN darlington transistor | 2.39 | 2.33 | 2.26 |
| 273519CX | NTE3086 | DIP-8 | Dual transistor | 3.75 | 3.66 | 3.57 |
| 273527CX | NTE3089 | DIP-6 | AC input, transistor | 4.30 | 3.72 | 3.63 |
| 273535CX | NTE3090 | DIP-6 | Schmitt trigger | 3.65 | 3.57 | 3.48 |
| 273543CX | NTE3098 | DIP-4 | NPN transistor output | 2.09 | 2.02 | 1.78 |
| 273560CX | NTE3100 | — | Opto interrupter | 5.39 | 5.14 | 4.67 |

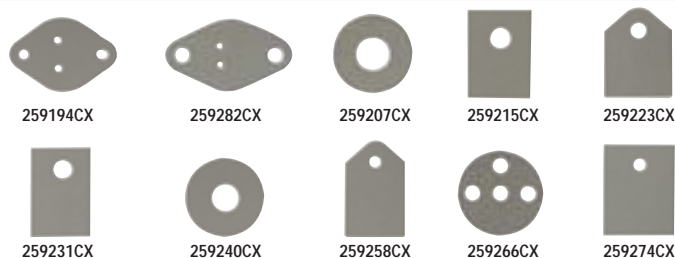
IC Sockets

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 25 |
|-----------------|------------|--------|-----------------------------|--------|--------|--------|
| 272727CX | NTE209 | TO-3 | Socket, trans, power, 2/pk. | \$2.09 | \$2.04 | \$1.99 |
| 273869CX | NTE409 | DIP-14 | 14-pin DIP socket, 2/pk. | 1.25 | 1.17 | 1.06 |
| 259178CX | NTE416 | DIP-16 | 16-pin DIP socket | 2.11 | 1.85 | 1.60 |
| 259186CX | NTE423 | DIP-8 | 8-pin DIP socket | 1.10 | 1.06 | 1.02 |
| 273885CX | NTE435P6 | DIP-6 | 6-pin DIP socket, 2/pk. | 1.39 | 1.36 | 1.32 |

Insulator Kits

| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 25 |
|-----------------|------------|----------|----------------------|--------|--------|--------|
| 273877CX | NTE413 | TO-3 | Insulator kit, 2/pk. | \$1.39 | \$1.29 | \$1.20 |
| 259160CX | NTE422 | TO-220 | Insulator kit | 1.01 | .97 | .93 |
| 273893CX | NTE439 | D05/TO48 | Insulator kit, stud | .55 | .54 | .47 |

NTE Hardware



| Part No. | Cross Ref. | Description | 1 | 10 | 25 |
|-----------------|------------|--|--------|--------|--------|
| 259151CX | NTE303 | 1 gram tube heat sink compound (5/pk.) | \$1.63 | \$1.55 | \$1.48 |
| 259194CX | TP0001 | TO-3 Thermo pad (5/pk.) | 1.39 | 1.29 | 1.25 |
| 259282CX | TP0002 | TO-66 Thermo pad (5/pk.) | 1.15 | 1.12 | 1.09 |
| 259207CX | TP0003 | DO-5 Thermo pad (5/pk.) | .82 | .78 | .75 |
| 259215CX | TP0004 | TO-126 Thermo pad (5/pk.) | .69 | .65 | .63 |
| 259223CX | TP0005 | TO-218 Thermo pad (5/pk.) | 1.36 | 1.33 | 1.27 |
| 259231CX | TP0006 | TO-220 Thermo pad (5/pk.) | 1.01 | .95 | .91 |
| 259240CX | TP0007 | DO-5 Thermo pad (5/pk.) | 1.03 | .98 | .95 |
| 259258CX | TP0008 | TO-3 Thermo pad (5/pk.) | 1.15 | 1.12 | 1.09 |
| 259266CX | TP0009 | TO-36 Thermo pad (5/pk.) | 1.38 | 1.35 | 1.29 |
| 259274CX | TP0010 | TO-3PML Thermo pad (5/pk.) | 2.41 | 2.20 | 1.95 |

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Optoisolators



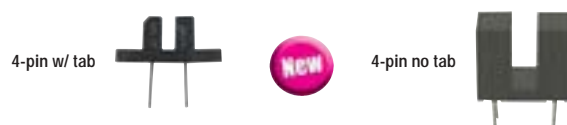
| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|---|--------|--------|--------|
| 40985CX | 4N25 | DIP-6 | Diode, NPN phototransistor | \$.22 | \$.18 | \$.17 |
| 41005CX | 4N26 | DIP-6 | Diode, NPN phototransistor | .25 | .22 | .18 |
| 144240CX | 4N27 | DIP-6 | Diode, NPN phototransistor | .24 | .22 | .17 |
| 41013CX | 4N28 | DIP-6 | Diode, NPN phototransistor | .39 | .28 | .20 |
| 277421CX | 4N29 | DIP-6 | General purpose photodarlington | .26 | .25 | .24 |
| 277456CX | 4N30 | DIP-6 | General purpose photodarlington | .26 | .22 | .19 |
| 41056CX | 4N35 | DIP-6 | Diode, NPN phototransistor | .39 | .35 | .25 |
| 41021CX | 4N32 | DIP-6 | Diode, NPN photodarlington | .26 | .24 | .18 |
| 41030CX | 4N33 | DIP-6 | Diode, NPN photodarlington | .25 | .24 | .22 |
| 277464CX | 4N36 | DIP-6 | General purpose phototransistor | .20 | .18 | .17 |
| 277481CX | 4N38 | DIP-6 | High-voltage phototransistor | .53 | .46 | .39 |
| 277499CX | 4N39 | DIP-6 | Photo SCR optocoupler | 1.09 | .96 | .87 |
| 277501CX | 4N40 | DIP-6 | Photo SCR optocoupler | .73 | .59 | .50 |
| 277510CX | 6N135 | DIP-8 | High-speed transistor optocoupler | .54 | .44 | .36 |
| 42471CX | 6N136 | DIP-8 | High speed transistor optocoupler | .44 | .41 | .35 |
| 113911CX | 6N137 | DIP-8 | High-speed logic optocoupler | .71 | .60 | .55 |
| 42489CX | 6N138 | DIP-8 | Low input curr., hi-gain split darlington | .65 | .45 | .55 |
| 113929CX | 6N139 | DIP-8 | High-speed, high-gain darlington | .62 | .55 | .43 |
| 277561CX | H11A1 | DIP-6 | General purpose phototransistor | .27 | .22 | .20 |
| 18825CX | H11AA1 | DIP-6 | Dual infrared diode, NPN phototransistor | .39 | .35 | .29 |
| 277587CX | H11A2 | DIP-6 | General purpose phototransistor | .30 | .21 | .17 |
| 277595CX | H11A3 | DIP-6 | General purpose phototransistor | .34 | .26 | .21 |
| 281201CX | H11A4 | DIP-6 | General purpose phototransistor | .34 | .30 | .23 |
| 114016CX | H11C1 | DIP-6 | Photo SCR optocoupler | .87 | .87 | .87 |
| 18833CX | H11C3 | DIP-6 | Photo SCR optocoupler | .86 | .72 | .58 |
| 114008CX | H11C4 | DIP-6 | Photo SCR optocoupler | .83 | .83 | .83 |
| 277608CX | H11C6 | DIP-6 | Photo SCR optocoupler | .89 | .75 | .61 |
| 113996CX | H11F1 | DIP-6 | Isolated FET | 1.93 | 1.50 | 1.25 |
| 277712CX | H11G1 | DIP-6 | High-voltage photodarlington | .51 | .47 | .39 |
| 277721CX | H11G2 | DIP-6 | High-voltage photodarlington | .67 | .55 | .42 |
| 277747CX | H11G3 | DIP-6 | High-voltage photodarlington | .62 | .52 | .40 |
| 113988CX | H11L1 | DIP-6 | Schmitt trigger output photocoupler | .53 | .49 | .48 |
| 138069CX | ISP817-3 | DIP-4 | Low power transistor output | .99 | .89 | .69 |
| 114083CX | ISQ203 | DIP-16 | Quad channel NPN phototransistor | 2.95 | 2.65 | 2.39 |
| 24918CX | MVT6 | DIP-8 | Dual channel NPN phototransistor | .49 | .45 | .41 |
| 277763CX | MOC3012 | DIP-6 | Random phase triac driver | .76 | .58 | .44 |
| 277780CX | MOC3020 | DIP-6 | Random phase triac driver | .54 | .41 | .31 |
| 277801CX | MOC3022 | DIP-6 | Random phase triac driver | .49 | .45 | .38 |

Optoisolators (Continued)



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------|--|--------|--------|--------|
| 277819CX | MOC3023 | DIP-6 | Random phase triac driver | \$.76 | \$.58 | \$.44 |
| 26294CX | MOC3031 | DIP-6 | Zero crossing triac driver | 1.06 | .99 | .95 |
| 113953CX | MOC3032 | DIP-6 | Zero crossing triac driver | .61 | .55 | .52 |
| 277827CX | MOC3033 | DIP-6 | Zero crossing triac driver | .52 | .48 | .45 |
| 277835CX | MOC3041 | DIP-6 | Zero crossing triac driver | .69 | .61 | .52 |
| 113961CX | MOC3042 | DIP-6 | Zero crossing triac driver | .65 | .58 | .50 |
| 277843CX | MOC3043 | DIP-6 | Zero crossing triac driver | .59 | .53 | .45 |
| 277860CX | MOC3051 | DIP-6 | Random phase triac driver | .73 | .62 | .50 |
| 277894CX | MOC3052 | DIP-6 | Random phase triac driver | .62 | .56 | .47 |
| 277915CX | MOC3061 | DIP-6 | Zero crossing phototriac driver | .64 | .59 | .50 |
| 277931CX | MOC3062 | DIP-6 | Zero crossing phototriac driver | .80 | .68 | .55 |
| 133874CX | MOC3063 | DIP-6 | Zero crossing triac driver | 1.25 | 1.12 | .99 |
| 26278CX | MOC3010 | DIP-6 | Bilateral triac driver | .49 | .45 | .30 |
| 95020CX | MOC3011 | DIP-6 | Bilateral triac driver | .77 | .58 | .39 |
| 95038CX | MOC3021 | DIP-6 | Bilateral triac driver | .46 | .41 | .31 |
| 160338CX | PS2501-4 | DIP-16 | Photo darlington & transistor/detector | 1.09 | 1.02 | .88 |
| 160362CX | PS2502-4 | DIP-16 | Photo darlington & transistor/detector | 1.76 | 1.61 | 1.39 |

Slotted Optical Switches



| Part No. | Cross Ref. | Pkg. | Description | 1 | 10 | 100 |
|----------|------------|--------------|-------------------------------------|--------|--------|--------|
| 114091CX | H21A1 | 4-pin w/ tab | Single channel slotted interrupter | \$.69 | \$.64 | \$.54 |
| 278011CX | H21A2 | 4-pin w/ tab | Phototransistor optical interrupter | .99 | .79 | .58 |
| 278070CX | H21B1 | 4-pin w/ tab | Photodarlington optical interrupter | .73 | .66 | .57 |
| 278088CX | H21B2 | 4-pin w/ tab | Photodarlington optical interrupter | 1.09 | .79 | .64 |
| 278096CX | H21B3 | 4-pin w/ tab | Photodarlington optical interrupter | 1.15 | .82 | .68 |
| 114104CX | H22A1 | 4-pin w/ tab | Slotted optical switch | .56 | .56 | .56 |
| 278029CX | H22A2 | 4-pin no tab | Slotted optical switch | .87 | .63 | .51 |
| 278045CX | H22A3 | 4-pin no tab | Slotted optical switch | .91 | .66 | .54 |
| 278109CX | H22B1 | 4-pin no tab | Photodarlington optical interrupter | .59 | .54 | .46 |
| 278117CX | H22B2 | 4-pin no tab | Photodarlington optical interrupter | .87 | .63 | .51 |
| 196058CX | ITR-8105 | 4-pin no tab | Slotted optical switch | 1.75 | 1.59 | 1.39 |

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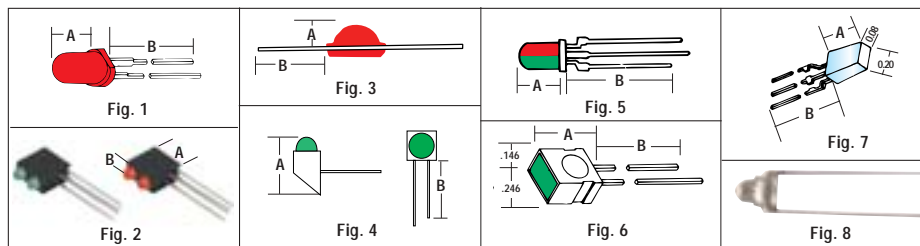
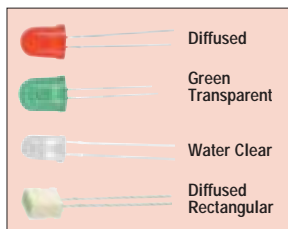
CdS Photocells

- Applications include: auto-focus lenses, exposure meters, contrast controls for TVs, dimmer or light switches, flame detectors, electronic toys, street lamp switches, optocouplers
- Generate variable signal based on detection of light levels
- Operating temperature: -30°C to +70°C

- Soldering: 230°C for 3 seconds
- Cadmium Sulfide (CdS)

Quantity
SAVE

| | Part No. | Mfr. Ref. No. | Rating | | Resistance (Ω) | | Size (inches) | | Lead Spacing (inches) | Lead Length (inches) | Pricing | | | |
|--------------|----------|---------------|--------|-----|----------------|-------|---------------|------|-----------------------|----------------------|---------|--------|--------|--------|
| | | | Vp | mW | Dark | Light | A | B | | | 1 | 10 | 100 | 1000 |
| 120299CX | 136055CX | CDST08 | 50 | 200 | 100k | 10k | 0.40 | 0.44 | 0.30 | 1.50 | \$.89 | \$.79 | \$.69 | \$.60 |
| | 202366CX | CDS0029001 | 150 | 90 | 300k | 4k | 0.14 | 0.17 | 0.10 | 1.02 | 1.69 | 1.57 | 1.29 | .99 |
| | 120310CX | CDS0029004 | 150 | 90 | 2M | 27k | 0.14 | 0.17 | 0.10 | 1.44 | 1.45 | 1.20 | 1.09 | .99 |
| | 202374CX | CDS0029006 | 150 | 90 | 5M | 80k | 0.14 | 0.17 | 0.10 | 1.02 | 1.79 | 1.61 | 1.29 | .97 |
| | 202391CX | CDS0029203 | 150 | 90 | 10M | 5k | 0.14 | 0.17 | 0.10 | 1.02 | 1.49 | 1.35 | 1.19 | 1.09 |
| | 202382CX | CDS0029008 | 150 | 90 | 20M | 10k | 0.14 | 0.17 | 0.10 | 1.02 | 1.49 | 1.29 | 1.09 | .79 |
| 202438CX | 202420CX | CDS0018003 | 150 | 100 | 500k | 16k | 0.17 | 0.20 | 0.13 | 1.02 | 1.69 | 1.49 | 1.35 | 1.15 |
| | 202403CX | CDS0018001 | 150 | 100 | 200k | 3k | 0.17 | 0.20 | 0.13 | 1.02 | 1.49 | 1.35 | 1.19 | 1.09 |
| | 202411CX | CDS0018006 | 150 | 100 | 5M | 80k | 0.17 | 0.20 | 0.13 | 1.02 | .69 | .65 | .59 | .55 |
| | 202438CX | CDS0037004 | 200 | 150 | 500k | 15k | 0.25 | 0.29 | 0.20 | 1.02 | 1.49 | 1.29 | 1.15 | .99 |
| | 120301CX | CDS0037001 | 200 | 150 | 300k | 3k | 0.25 | 0.29 | 0.20 | 1.02 | 1.79 | 1.59 | 1.45 | 1.29 |
| | 120299CX | CDS0045001 | 350 | 400 | 300k | 8k | 0.37 | 0.43 | 0.30 | 1.44 | 1.79 | 1.59 | 1.45 | 1.29 |
| | 202454CX | CDS0045003 | 350 | 400 | 1M | 12k | 0.37 | 0.43 | 0.30 | 1.44 | 1.69 | 1.55 | 1.35 | 1.15 |



Standard-Output LEDs

Quantity
SAVE

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* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Mfr. Cross Ref. No. | Fig. | Emitting Color | Lens/Feature Description | LED Size | Diameter inch/mm | Dimensions | | Lead Spacing | Typical Vf @ If (mA) | Typical mcd @ mA | Wavelength nm | Pricing | | | |
|----------|---------------------|------|----------------|---|----------|------------------|------------|------|--------------|----------------------|------------------|---------------|---------|--------|--------|--------|
| | | | | | | | A* | B* | | | | | 1 | 10 | 100 | 1000 |
| 206480CX | LVY2041 | 1 | Yellow | Yellow transparent | T1 | .119/3 | 0.17 | 0.69 | 0.08 | 2.3 @ 20 | 450 @ 20 | 595 | * | \$.14 | \$.12 | \$.10 |
| 202489CX | MVL-301Y | 1 | Yellow | Yellow diffused | T1 | .119/3 | 0.14 | 1.12 | 0.10 | 2.1 @ 20 | 9.0 @ 10 | 585 | * | .19 | .15 | .11 |
| 34657CX | LY2040* | 1 | Yellow | Yellow diffused (XC209Y) | T1 | .119/3 | 0.16 | 0.68 | 0.08 | 2.3 @ 20 | 15 @ 10 | 585 | * | .13 | .11 | .075 |
| 206498CX | LHR2041 | 1 | Red | Red transparent | T1 | .119/3 | 0.17 | 0.69 | 0.08 | 2.0 @ 20 | 350 @ 20 | 660 | * | .15 | .12 | .09 |
| 114673CX | LH2043* | 1 | Red | Water clear (BR209) | T1 | .119/3 | 0.14 | 0.98 | 0.07 | 2.3 @ 20 | 12 @ 10 | 697 | * | .19 | .15 | .12 |
| 94529CX | LH2040* | 1 | Red | Red diffused (XC209RB) | T1 | .119/3 | 0.18 | 1.04 | 0.07 | 2.3 @ 20 | 4.5 @ 10 | 697 | * | .19 | .15 | .12 |
| 175679CX | LVG2041 | 1 | Green | Green transparent | T1 | .119/3 | 0.17 | 0.69 | 0.08 | 2.2 @ 20 | 129 @ 20 | 565 | * | .15 | .11 | .08 |
| 114681CX | LVG2043* | 1 | Green | Water clear (BG209) | T1 | .119/3 | 0.14 | 0.98 | 0.07 | 2.2 @ 20 | 129 @ 20 | 565 | * | .09 | .07 | .055 |
| 34606CX | LSG2040* | 1 | Green | Green diffused (XC209G) | T1 | .119/3 | 0.13 | 1.05 | 0.08 | 2.2 @ 20 | 15 @ 10 | 560 | * | .15 | .11 | .08 |
| 211086CX | LTL-4231N-022 | 1 | Green | Green diffused | T1 | .119/3 | 0.13 | 1.10 | 0.10 | 2.1 @ 20 | 12.6 @ 10 | 565 | * | .11 | .094 | .071 |
| 202471CX | MVL-301HR | 1 | Orange Red | Red diffused | T1 | .119/3 | 0.14 | 1.12 | 0.10 | 2.0 @ 20 | 9.0 @ 10 | 640 | * | .19 | .15 | .11 |
| 94553CX | LHG2062 | 1 | Red/Green | White diffused bi-color/bi-state [†] | T1 | .119/3 | 0.18 | 1.06 | 0.08 | 2.3 @ 20 | 3 & 15 @ 10 | 697/565 | .29 | .25 | .21 | .16 |
| 137411CX | LVB2040 | 1 | Blue | Blue diffused | T1 | .119/3 | 0.21 | 0.98 | 0.10 | 4.8 @ 20 | 10 @ 20 | 430 | 2.49 | 2.25 | 1.95 | 1.69 |
| 210825CX | BVU-5MIQN1 | 1 | Orange Red | Red diffused | T1 3/4 | .197/5 | 0.30 | 1.07 | 0.08 | 2.1 @ 20 | 600 @ 20 | 615 | .49 | .45 | .39 | .35 |
| 135597CX | LTL307E* | 1 | Orange Red | Red diffused | T1 3/4 | .197/5 | 0.34 | 1.00 | 0.07 | 2.0 @ 20 | 19 @ 10 | 635 | * | .16 | .10 | .09 |
| 107393CX | LE3330 | 1 | Orange Red | Orange diffused (XC556A) | T1 3/4 | .197/5 | 0.30 | 1.02 | 0.08 | 2.3 @ 20 | 12 @ 10 | 635 | * | .11 | .07 | .06 |
| 206501CX | LVY3331 | 1 | Yellow | Yellow transparent | T1 3/4 | .197/5 | 0.24 | 1.07 | 0.07 | 2.2 @ 20 | 700 @ 20 | 595 | * | .19 | .15 | .12 |
| 175695CX | LVY3333* | 1 | Yellow | Water clear | T1 3/4 | .197/5 | 0.30 | 1.07 | 0.08 | 2.1 @ 20 | 60 @ 10 | 585 | * | .19 | .15 | .12 |
| 34825CX | LY3330* | 1 | Yellow | Yellow diffused (XC556Y) | T1 3/4 | .197/5 | 0.30 | 0.82 | 0.07 | 2.3 @ 20 | 12 @ 10 | 585 | * | .19 | .15 | .12 |
| 206519CX | LHR3331 | 1 | Red | Red transparent | T1 3/4 | .197/5 | 0.24 | 1.07 | 0.07 | 2.0 @ 20 | 660 @ 20 | 550 | * | .19 | .15 | .12 |
| 138860CX | LFH3363 | 1 | Red | Water clear/flash [†] | T1 3/4 | .197/5 | 0.35 | 1.06 | 0.10 | 3-12V | 9 | 697 | .49 | .45 | .39 | .29 |
| 34745CX | LH3333 | 1 | Red | Water clear (XC554R) | T1 3/4 | .197/5 | 0.30 | 1.00 | 0.08 | 2.3 @ 20 | 7.5 @ 10 | 697 | * | .15 | .11 | .065 |
| 94511CX | LH3330 | 1 | Red | Red diffused (XC556RB) | T1 3/4 | .197/5 | 0.31 | 0.81 | 0.08 | 2.3 @ 20 | 3 @ 10 | 697 | * | .17 | .13 | .10 |
| 34690CX | LFH3360* | 1 | Red | Red diffused/flash [†] (XC5410) [†] | T1 3/4 | .197/5 | 0.30 | 0.94 | 0.07 | 3-12V | 2.8 | 697 | .49 | .45 | .39 | .35 |
| 134332CX | LT18B3-81UR | 1 | Blue | Water clear | T1 3/4 | .197/5 | 0.30 | 0.93 | 0.10 | 3.8 @ 20 | 350 @ 20 | 428 | 2.65 | 2.45 | 2.25 | 1.95 |
| 137613CX | LSBI3333 | 1 | Blue | Water clear | T1 3/4 | .197/5 | 0.34 | 0.98 | 0.08 | 3.8 @ 20 | 160 @ 20 | 430 | 2.27 | 2.05 | 1.65 | 1.25 |
| 138691CX | LVB3330 | 1 | Blue | Blue diffused | T1 3/4 | .197/5 | 0.34 | 0.98 | 0.08 | 4.8 @ 20 | 10 @ 20 | 430 | 2.14 | 2.04 | 1.95 | 1.79 |
| 153154CX | LVG3333 | 1 | Green | Water clear | T1 3/4 | .197/5 | 0.36 | 0.90 | 0.10 | 2.3 @ 20 | 500 @ 20 | 565 | * | .14 | .10 | .08 |
| 11359CX | LG3333* | 1 | Green | Water clear (BG5704) | T1 3/4 | .197/5 | 0.30 | 1.04 | 0.07 | 2.3 @ 20 | 100 @ 20 | 565 | * | .22 | .20 | .16 |
| 94561CX | LFG3360 | 1 | Green | Green diff./flash [†] (XC5408) [†] | T1 3/4 | .197/5 | 0.30 | 1.05 | 0.08 | 3-12V | 17 | 565 | .59 | .53 | .48 | .43 |
| 34761CX | LG3330* | 1 | Green | Green diffused (XC556G) | T1 3/4 | .197/5 | 0.31 | 0.79 | 0.09 | 2.3 @ 20 | 12 @ 10 | 565 | * | .15 | .14 | .10 |
| 34711CX | LEG3362* | 1 | Red/Green | White diffused bi-color/bi-state [†] | T1 3/4 | .197/5 | 0.30 | 1.01 | 0.09 | 2.3 @ 20 | 7.5 & 8 @ 20 | 635/565 | .33 | .28 | .22 | .19 |
| 119634CX | LHR3930 | 1 | Red | Red diffused Jumbo | T2 1/2 | .315/8 | 0.44 | 0.84 | 0.07 | 2.0 @ 20 | 100 @ 20 | 660 | .23 | .20 | .15 | .13 |
| 137621CX | LVG3930 | 1 | Green | Green diffused Jumbo | T2 1/2 | .315/8 | 0.43 | 1.04 | 0.07 | 2.3 @ 20 | 40 @ 20 | 565 | .25 | .20 | .15 | .12 |
| 138683CX | LHR3630 | 1 | Red | Red diffused XJumbo (XC10R) | T3 1/4 | .394/10 | 0.40 | 1.04 | 0.10 | 2.0 @ 20 | 100 @ 20 | 660 | .29 | .26 | .22 | .18 |
| 98984CX | LVG3630 | 1 | Green | Green diffused XJumbo (XC10G) | T3 1/4 | .394/10 | 0.40 | 1.07 | 0.08 | 2.3 @ 20 | 40 @ 20 | 565 | .27 | .26 | .19 | .13 |
| 98992CX | LY3630 | 1 | Yellow | Yellow diff. XJumbo (XC10Y) | T3 1/4 | .394/10 | 0.54 | 1.04 | 0.08 | 2.3 @ 20 | 15 @ 20 | 585 | .29 | .25 | .19 | .15 |
| 235416CX | LA45B/2G | 2 | Green | Green diffused (dual) | T1 | .119/3 | 0.40 | 0.18 | 0.10 | 1.7 @ 20 | 15 @ 10 | 565 | 1.29 | 1.15 | .89 | .59 |
| 136274CX | LA44B/2G | 2 | Green | Green diffused (dual) | T1 | .119/3 | 0.38 | 0.17 | 0.10 | 2.3 @ 20 | 15 @ 10 | 565 | .49 | .45 | .39 | .29 |
| 235424CX | LA45B/2I | 2 | Red | Red diffused (dual) | T1 | .119/3 | 0.40 | 0.18 | 0.10 | 1.7 @ 20 | 12 @ 10 | 630 | 1.29 | 1.15 | .89 | .59 |
| 136282CX | LA44B/2I | 2 | Red | Red diffused (dual) | T1 | .119/3 | 0.38 | 0.17 | 0.10 | 2.3 @ 20 | 12 @ 10 | 630 | .49 | .45 | .39 | .29 |
| 26745CX | MCDL-170EC | 3 | Red | Water clear | T 3/4 | .083/2.1 | 0.06 | 0.25 | 0.11 | 2.1 @ 20 | 7 @ 10 | 635 | .25 | .23 | .21 | .18 |
| 104248CX | LA93B/H-1* | 4 | Red | Red diffused (XC410R) | T1 3/4 | .197/5 | 0.35 | 0.89 | 0.08 | 2.3 @ 20 | 6.5 @ 10 | 697 | * | .23 | .19 | .17 |
| 104256CX | LA93B/G-1* | 4 | Green | Green diffused (XC410G) | T1 3/4 | .197/5 | 0.35 | 0.89 | 0.08 | 2.3 @ 20 | 30 @ 10 | 565 | * | .23 | .19 | .17 |
| 104264CX | LA93B/Y-1 | 4 | Yellow | Yellow diffused (XC410Y) | T1 3/4 | .197/5 | 0.35 | 0.89 | 0.08 | 2.3 @ 20 | 25 @ 10 | 585 | .35 | .29 | .25 | .19 |
| 34673CX | LHG3392* | 5 | Red/Green | White diff. bi-color/tri-state | T1 3/4 | .197/5 | 0.30 | 1.02 | 0.03 | 2.3 @ 20 | 3 & 12 @ 10 | 697/565 | .24 | .22 | .20 | .14 |
| 94545CX | LG25030†† | 6 | Green | Green diff. rect. (XC57124G) | 3.5 x 6 | — | 0.26 | 1.06 | 0.08 | 2.3 @ 20 | 5.2 @ 20 | 565 | .19 | .16 | .15 | .14 |
| 104889CX | LEG5292†† | 7 | Red/Green | White diff. bi-color rectangular | 2 x 5 | — | 0.27 | 1.02 | 0.08 | 2.3 @ 20 | 6/6 @ 10 | 695/565 | * | .17 | .13 | .09 |
| 176532CX | MV50G | 8 | Green | Water clear | T 3/4 | .069/1.7 | 0.06 | 0.40 | 0.08 | 2.1 @ 20 | 300 @ 20 | 568 | * | .12 | .10 | .069 |

† Reverse polarity to change color †† Voltage shown is operating voltage range; no current limiting resistor required

†† For Mounting Hardware see pg 40

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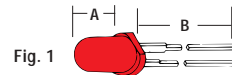


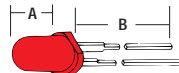
Fig. 1



Fig. 2

| Part No. | Mfr. Cross Reference No. | Fig. | Emitting Color | Lens/Feature Description | LED Size | Diameter inch/mm | Dimensions | | Lead Spacing | Typical Vf @ If (mA) | Typical mcd @ mA | Wavelength nm | Pricing | | | |
|----------|--------------------------|------|------------------|--------------------------|----------|------------------|------------|------|--------------|----------------------|------------------|---------------|---------|--------|--------|--------|
| | | | | | | | A" | B" | | | | | 1 | 10 | 100 | 1000 |
| 217525CX | MCDPW-3004C | 1 | White | Water clear | T1 | .119/3 | 0.18 | 1.00 | 0.10 | 3.8 @ 20 | 3000 @ 20 | — | \$2.99 | \$2.85 | \$2.69 | \$2.55 |
| 142893CX | BVU-5E1WK4-B | 1 | White | Water clear | T1 3/4 | .197/5 | 0.34 | 0.79 | 0.08 | 3.5 @ 20 | 3700 @ 20 | — | 3.95 | 3.59 | 2.95 | 2.75 |
| 183231CX | BVU-5C14WK4-B | 1 | White | Water clear | T1 3/4 | .197/5 | 0.30 | 1.06 | 0.08 | 3.5 @ 20 | 3000 @ 20 | — | 2.95 | 2.65 | 2.39 | 2.15 |
| 183222CX | MCDL-513SBC4 | 1 | Blue | Water clear | T1 3/4 | .197/5 | 0.29 | 1.02 | 0.08 | 3.6 @ 20 | 3000 @ 20 | 470 | 3.25 | 2.95 | 2.65 | 2.39 |
| 183214CX | MCDPG-503PC1 | 1 | Green | Water clear | T1 3/4 | .197/5 | 0.30 | 1.04 | 0.08 | 3.5 @ 20 | 2200 @ 20 | 515 | 2.95 | 2.65 | 2.39 | 2.15 |
| 131895CX | TLSH180P | 1 | Orange | Water clear | T1 3/4 | .197/5 | 0.39 | 0.80 | 0.10 | 2.1 @ 20 | 10000 @ 20 | 623 | 2.49 | 2.19 | 1.95 | 1.79 |
| 197683CX | BVT-5E1QT4ER | 1 | Orange Red | Water clear | T1 3/4 | .197/5 | 0.29 | 1.08 | 0.08 | 2.3 @ 20 | 4650 @ 20 | 634 | .69 | .59 | .49 | .39 |
| 197616CX | BVU-5E1QH4E | 1 | Red | Water clear | T1 3/4 | .197/5 | 0.30 | 1.05 | 0.08 | 1.8 @ 20 | 2180 @ 20 | 630 | .39 | .35 | .29 | .25 |
| 152864CX | BVU-501RD4 | 2 | Red Super Bright | Water clear | T1 3/4 | .197/5 | 0.34 | 0.89 | 0.10 | 1.9 @ 20 | 1000 @ 20 | 660 | .29 | .24 | .19 | .15 |
| 197675CX | BVT-5E1TT4E | 1 | Yellow | Water clear | T1 3/4 | .197/5 | 0.30 | 1.08 | 0.08 | 2.3 @ 20 | 2800 @ 20 | 592 | .45 | .36 | .29 | .27 |
| 197641CX | BVT-529TT3E | 2 | Yellow | Yellow transparent | Oval | .170/.220 | 0.29 | 1.04 | 0.08 | 2.3 @ 20 | 7800 @ 20 | 592 | .69 | .62 | .55 | .49 |

HLMP Series LEDs



* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Mfr. Cross Ref. No. | Emitting Color | Lens/Feature Description | LED Size | Diameter inch/mm | Dimensions | | Lead Spacing | Typical Vf @ If (mA) | Typical mcd @ mA | Wavelength nm | Pricing | | | |
|----------|---------------------|----------------|--------------------------|----------|------------------|------------|------|--------------|----------------------|------------------|---------------|---------|---------|---------|---------|
| | | | | | | A" | B" | | | | | 1 | 10 | 100 | 1000 |
| 253278CX | HLMP-1301 | Red | Diffused | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 1.9 @ 10 | 5.4 @ 10 | 635 | * | \$.137 | \$.112 | \$.098 |
| 253366CX | HLMP-1321 | Red | Tinted | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 1.9 @ 10 | 30 @ 10 | 635 | * | .167 | .13 | .10 |
| 253551CX | HLMP-1340 | Red | Clear | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 1.9 @ 20 | 55 @ 10 | 635 | * | .122 | .105 | .076 |
| 253690CX | HLMP-1700 | Red | Diffused | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 1.7 @ 2 | 2.1 @ 2 | 635 | * | .132 | .105 | .086 |
| 253702CX | HLMP-K101 | Red | Diffused | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 1.8 @ 20 | 45 @ 20 | 645 | * | .203 | .133 | .106 |
| 253711CX | HLMP-K105 | Red | Clear | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 2.2 @ 20 | 65 @ 20 | 645 | * | .169 | .152 | .113 |
| 253729CX | HLMP-K150 | Red | Diffused | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 1.8 @ 1 | 2.0 @ 1 | 645 | * | .216 | .171 | .097 |
| 253631CX | HLMP-1503 | Green | Diffused | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 2.1 @ 10 | 1.0 @ 10 | 565 | * | .103 | .076 | .061 |
| 253649CX | HLMP-1521 | Green | Tinted | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 2.7 @ 10 | 6.7 @ 10 | 565 | * | .216 | .171 | .095 |
| 253657CX | HLMP-1523 | Green | Diffused | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 2.1 @ 10 | 7.0 @ 10 | 565 | .316 | .244 | .171 | .095 |
| 253665CX | HLMP-1540 | Green | Clear | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 45 @ 20 | 2.2 @ 20 | 565 | * | .132 | .105 | .086 |
| 253681CX | HLMP-1790 | Green | Diffused | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 2.2 @ 2 | 2.3 @ 2 | 565 | * | .132 | .105 | .099 |
| 253673CX | HLMP-1719 | Yellow | Diffused | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 2.5 @ 2 | 2.1 @ 2 | 583 | * | .132 | .105 | .086 |
| 253614CX | HLMP-1401 | Yellow | Diffused | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 2.0 @ 10 | 2.2 @ 10 | 583 | * | .137 | .112 | .098 |
| 253622CX | HLMP-1440 | Yellow | Clear | T1 | .119/3 | 0.19 | 1.00 | 0.10 | 2.1 @ 20 | 45 @ 20 | 583 | * | .122 | .105 | .076 |
| 253745CX | HLMP-3300 | Red | Diffused | T1 3/4 | .197/5 | 0.36 | 1.00 | 0.10 | 2.2 @ 10 | 3.5 @ 10 | 635 | .335 | .263 | .188 | .113 |
| 253753CX | HLMP-3301 | Red | Diffused | T1 3/4 | .197/5 | 0.36 | 1.00 | 0.10 | 2.4 @ 10 | 5.4 @ 10 | 635 | * | .16 | .143 | .095 |
| 253788CX | HLMP-3750 | Red | Clear | T1 3/4 | .197/5 | 0.36 | 0.90 | 0.10 | 1.9 @ 20 | 125 @ 20 | 635 | * | .141 | .105 | .07 |
| 253817CX | HLMP-4700 | Red | Diffused | T1 3/4 | .197/5 | 0.36 | 1.00 | 0.10 | 1.7 @ 2 | 2.3 @ 2 | 626 | .31 | .244 | .171 | .095 |
| 253841CX | HLMP-D101 | Red | Diffused | T1 3/4 | .197/5 | 0.36 | 1.00 | 0.10 | 2.2 @ 20 | 70 @ 20 | 645 | * | .207 | .171 | .119 |
| 253850CX | HLMP-D150 | Red | Diffused | T1 3/4 | .197/5 | 0.36 | 1.00 | 0.10 | 1.8 @ 1 | 3.0 @ 1 | 645 | .31 | .244 | .171 | .096 |
| 11797CX | QLMP-D141 * | Red | Water Clear | T1 3/4 | .197/5 | 0.29 | 1.05 | 0.07 | 2.0 @ 20 | 350 @ 20 | 660 | * | .19 | .13 | .10 |
| 253868CX | HLMP-D401 | Orange Red | Diffused | T1 3/4 | .197/5 | 0.36 | 1.00 | 0.10 | 2.4 @ 10 | 5.4 @ 10 | 600 | * | .14 | .127 | .126 |
| 203553CX | HLMP-4100 | Orange Red | Water Clear | T1 3/4 | .197/5 | 0.33 | 1.07 | 0.08 | 2.1 @ 20 | 600 @ 20 | 615 | .29 | .25 | .20 | .15 |
| 253770CX | HLMP-3507 | Green | Diffused | T1 3/4 | .197/5 | 0.36 | 1.00 | 0.10 | 2.1 @ 10 | 4.2 @ 10 | 565 | * | .169 | .143 | .095 |
| 253809CX | HLMP-3950 | Green | Clear | T1 3/4 | .197/5 | 0.36 | 0.90 | 0.10 | 1.5 @ 20 | 265 @ 20 | 565 | * | .244 | .171 | .095 |
| 253833CX | HLMP-4740 | Green | Diffused | T1 3/4 | .197/5 | 0.36 | 1.00 | 0.10 | 2.2 @ 2 | 2.3 @ 2 | 565 | * | .244 | .171 | .124 |
| 253761CX | HLMP-3401 | Yellow | Diffused | T1 3/4 | .197/5 | 0.36 | 1.00 | 0.10 | 2.0 @ 10 | 5.7 @ 10 | 583 | .29 | .244 | .171 | .095 |
| 253796CX | HLMP-3850 | Yellow | Clear | T1 3/4 | .197/5 | 0.36 | 0.90 | 0.10 | 2.1 @ 20 | 140 @ 20 | 583 | * | .244 | .171 | .098 |
| 253825CX | HLMP-4719 | Yellow | Diffused | T1 3/4 | .197/5 | 0.36 | 1.00 | 0.10 | 2.5 @ 2 | 2.1 @ 2 | 585 | * | .226 | .171 | .096 |

*10 pcs. in LEDs & LED Mounting Hardware cabinet kit, pg 227

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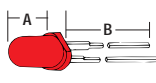


Fig. 1

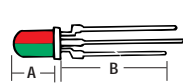


Fig. 2

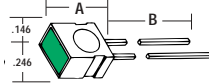


Fig. 3



* Prepackaged: order in increments of 10, 100 or 1000

| Part Number | Product Number | Fig. | Emitting Color | Lens/Feature Description | LED Size | Diameter (in./mm) | Dimensions | | Lead Spacing | Typical Vf @ If (mA) | Typical mcd @ mA | Wavelength nm | Pricing | | | |
|--------------------------|------------------|------|------------------|--------------------------------|--------------------------|-------------------|------------|------|--------------|----------------------|------------------|---------------|---------|--------|--------|--------|
| | | | | | | | A" | B" | | | | | 1 | 10 | 100 | 1000 |
| 156953CX | LT0373-41 | 1 | Red Super Bright | Water clear | T1 | .119/3 | 0.21 | 1.07 | 0.08 | 1.7 @ 20 | 600 @ 20 | 660 | \$.24 | \$.22 | \$.17 | \$.14 |
| 156945CX | LT0362-25-D61 | 2 | Red/Green | White diff. bi-color tri-state | T1 | .119/3 | 0.16 | 0.87 | 0.08 | 2.1 @ 20 | 2.7/13.3 @ 20 | 700/567 | .29 | .25 | .19 | .15 |
| 152750CX | LT0344R-41 | 1 | Orange Red | Red clear | T1 | .119/3 | 0.20 | 0.89 | 0.10 | 2.1 @ 20 | 52.9 @ 20 | 635 | * | .19 | .16 | .12 |
| 152784CX | LT0341R-41 | 1 | Orange Red | Red diffused | T1 | .119/3 | 0.20 | 0.89 | 0.10 | 2.1 @ 20 | 15.5 @ 10 | 635 | * | .17 | .15 | .12 |
| 152768CX | LT0324-41 | 1 | Green | Green clear | T1 | .119/3 | 0.20 | 0.89 | 0.10 | 2.1 @ 20 | 45 @ 20 | 567 | * | .12 | .09 | .07 |
| 156929CX | LT0321-41-HE | 1 | Green | Green diffused | T1 | .118/3 | 0.16 | 0.88 | 0.10 | 2.1 @ 20 | 32 @ 20 | 567 | * | .18 | .11 | .10 |
| 156937CX | LT0331-41 | 1 | Yellow | Yellow diffused | T1 | .118/3 | 0.16 | 0.88 | 0.10 | 1.7 @ 20 | 1.8 @ 20 | 655 | * | .14 | .10 | .07 |
| 136493CX | LT0333-41* | 1 | Yellow | Water clear | T1 | .119/3 | 0.20 | 0.95 | 0.10 | 2.3 @ 20 | 38 @ 20 | 589 | * | .19 | .11 | .09 |
| 215597CX | LT2K33-81-UC9T | 1 | Yellow | Water clear | T1 3/4 | .197/5 | 0.31 | 0.89 | 0.10 | 2.2 @ 20 | 5000 @ 20 | 592 | .59 | .55 | .49 | .45 |
| 261622CX | LT1873-81-UR-P22 | 1 | Red | Water clear | T1 3/4 | .197/5 | 0.34 | 0.89 | 0.10 | 1.9 @ 20 | 1200 @ 20 | 660 | .21 | .20 | .19 | .15 |
| 242843CX | LT1811-81 | 1 | Red | Red diffused | T1 3/4 | .197/5 | 0.30 | 0.88 | 0.10 | 2.1 @ 20 | 4.1 @ 20 | 700 | * | .12 | .10 | .06 |
| 152805CX | LT1873-81-UR | 1 | Red Ultra Bright | Water clear | T1 3/4 | .197/5 | 0.34 | 0.89 | 0.10 | 1.9 @ 20 | 2000 @ 20 | 660 | .29 | .25 | .19 | .15 |
| 153138CX | LT2KJ3-UR-S14 | 1 | Orange | Water clear | T1 3/4 | .197/5 | 0.36 | 0.90 | 0.10 | 2.1 @ 20 | 2500 @ 20 | 621 | .49 | .44 | .39 | .35 |
| 152856CX | LT1841R-81 | 1 | Orange Red | Red diffused | T1 3/4 | .197/5 | 0.34 | 0.89 | 0.10 | 2.1 @ 20 | 23 @ 20 | 635 | * | .17 | .15 | .13 |
| 156961CX | LT1823-81-HE | 1 | Green | Water clear | T1 3/4 | .197/5 | 0.34 | 0.87 | 0.10 | 2.1 @ 20 | 500 @ 20 | 567 | * | .17 | .15 | .12 |
| 152821CX | LT1821-81-HE | 1 | Green | Green diffused | T1 3/4 | .197/5 | 0.34 | 0.89 | 0.10 | 2.1 @ 20 | 96 @ 20 | 567 | * | .16 | .12 | .09 |
| 175687CX | LT0524-81 | 1 | Green | Green transparent | T1 3/4 | .197/5 | 0.24 | 1.07 | 0.07 | 2.1 @ 20 | 44 @ 20 | 567 | * | .16 | .12 | .09 |
| 152792CX | LT1833-81-M1 | 1 | Ylw Super Bright | Water clear | T1 3/4 | .197/5 | 0.34 | 0.89 | 0.10 | 2.1 @ 20 | 1040 @ 20 | 593 | .26 | .24 | .19 | .14 |
| 152830CX | LT1831-81-UR | 1 | Ylw Ultra Bright | Yellow diffused | T1 3/4 | .197/5 | 0.34 | 0.89 | 0.10 | 2.0 @ 20 | 424 @ 20 | 593 | .26 | .24 | .20 | .14 |
| 34850CX | LT7341R-81† | 3 | Orange Red | Red diffused rectangular | 3.5 x 6 | — | 0.27 | 0.85 | 0.07 | 2.0 @ 20 | 5.2 @ 20 | 635 | .26 | .22 | .16 | .15 |
| White Diffused Backlight | | | | | | | | | | | | | | | | |
| 151415CX | LT1F24-A2-S1 | — | Green | Backlight, white diffused | 2.05"L x 0.78"H x 0.09"T | | | | 8-pin | 4.2 @ 20 | 140 @ 20 | 567 | \$2.95 | \$2.65 | \$2.39 | \$1.95 |

* 10 pcs. in LEDs & LED Mounting Hardware cabinet kit, see below † For Mounting Hardware, see below

Infrared and Visible Light Emitters and Detectors

- Use for remote control and/or for fiber optics

P/N 133946CX:

Can be used with cameras, see page 181 (peak emission wavelength: 940nm @ 20mA)



106526CX

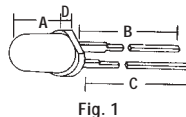


Fig. 1

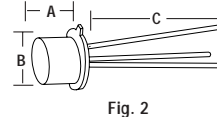


Fig. 2



172321CX (Fig. 3)

| Part No. | Mfr. Cross Ref. No. | Fig. | Description | Size | Diameter inch/mm | Dimensions (inches) | | | | Vf @ If | nm | mWatts | Pricing | | | |
|----------|---------------------|------|-------------------------------|--------|------------------|---------------------|------|------|------|--------------|-----|--------|------------------------|-------|-------|-------|
| | | | | | | A | B | C | D | | | | 1 | 10 | 100 | 1000 |
| 112150CX | LIR2043 | 1 | Infrared emitter diode (GaAs) | T1 | 0.125/3 | 0.18 | 0.95 | 0.98 | 0.03 | 1.2V @ 20mA | 940 | 5 | \$.22 | \$.18 | \$.14 | \$.12 |
| 133946CX | SLI-0308CP | 1 | Infrared emitter diode (GaAs) | T1 | 0.12/3 | 0.22 | 0.98 | 1.00 | 0.03 | 1.3V @ 50mA | 940 | 4 | .62 | .53 | .40 | .31 |
| 112176CX | LPT2023 | 1 | Infrared phototransistor | T1 | 0.12/3 | 0.18 | 0.95 | 0.98 | 0.03 | — | 940 | — | .39 | .29 | .19 | .15 |
| 106526CX | LVIR3333 | 1 | Infrared emitter diode (GaAs) | T1 3/4 | 0.200/5 | 0.34 | 0.78 | 0.84 | 0.04 | 1.2V @ 20mA | 940 | 8 | .39 | .29 | .19 | .15 |
| 112168CX | LPT3313 | 1 | Infrared phototransistor | T1 3/4 | 0.200/5 | 0.31 | 1.05 | 1.10 | 0.04 | — | 940 | — | .36 | .30 | .24 | .20 |
| 120221CX | BPW77NA | 2 | Visible light phototransistor | TO-18 | — | 0.24 | 0.19 | 0.52 | — | — | 850 | — | \$1.95 1.59 | 1.55 | 1.49 | 1.39 |
| 172321CX | OP133 | 3 | Infrared emitter diode (GaAs) | TO-46 | — | 0.22 | 0.18 | 1.05 | 0.20 | 1.4V @ 100mA | 935 | 5 | 2.15 | 1.95 | 1.45 | 1.42 |

LEDs Cabinet Kit and LED Mounting Hardware

LEDs & LED Mounting Hardware Kit

Includes:

- 20-drawer component cabinet (81701CX), 20 clear plastic drawers (85454CX), 20 clear dividers (85446CX), pg 108 and 30 adhesive labels for drawers to identify parts in kit
- 10 ea. standard-output LEDs (34657CX, 114673CX, 114681CX, 34606CX, 175695CX, 34825CX, 34690CX, 11359CX, 34761CX, 34711CX, 104248CX, 104256CX, 34673CX), pg 40 and 136493CX, above
- 10 ea. HLMP series LEDs (11797CX), pg 39
- 10 ea. LED lens mount (14277CX), right
- 100 ea. LEDs (94529CX, 135597CX), pg 38
- 100 ea. LED mounting hardware (95513CX, 23077CX), right

SAVE \$29

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|--------------|------------|---------|---------|
| 84998CX | 560 pcs. kit | 5.0 | \$66.95 | \$60.25 |

LED Mounting Hardware

- P/N 95521CX: for use with P/N 94545CX and 34850CX, pg 38



95513CX



23077CX



95521CX

Quantity
SAVE

Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Mfr. Cross Ref. No. | Description | Color | Mounting Hole Dia. | Panel Thickness | Pricing | | |
|----------|---------------------|--------------------|-------|--------------------|-----------------|---------|-------|-------|
| | | | | | | 10 | 100 | 1000 |
| 95513CX | LMH100 | T1 snap-in | Black | .185" | Up to .070" | \$.08 | \$.07 | \$.04 |
| 23077CX | LMH200 | T1 3/4 ring & clip | Black | .257" | Up to .125" | .15 | .135 | .12 |
| 95521CX | LMH250 | Rect. snap-in | Black | .306" x .202" | Up to .092" | .20 | .17 | .13 |



T1 3/4 Cliplite® LED Lens Mount

- Requires no assembly tools, just snap in
- Material: lens – polycarbonate; spacer – nylon
- Increases viewing angle to 180°
- Devices mount on .375" centers
- Helps guard against electrostatic discharge up to 16kV while affording the LED physical protection



29612CX

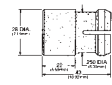


Fig. 1 (5mm)

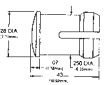


Fig. 2 (5mm)

| Part No. | Product No. | Description | Color | Fig. | Mounting Hole Dia. | Panel Thickness | Pricing | | | |
|----------|-------------|-------------|-------|------|--------------------|-----------------|---------|-------|-------|-------|
| | | | | | | | 1 | 10 | 100 | 1000 |
| 14277CX | CLF280CTP | T1 3/4 | Clear | 1 | .25" | .063" – .125" | \$.25 | \$.19 | \$.16 | \$.14 |
| 29612CX | CLF280RTP | T1 3/4 | Red | 1 | .25" | .063" – .125" | .25 | .19 | .16 | .14 |
| 124927CX | CLB300CTP | T1 3/4 | Clear | 2 | .25" | .031" – .25" | .25 | .19 | .16 | .14 |

LED Displays

The general advantages of LED displays compared to incandescent types include:

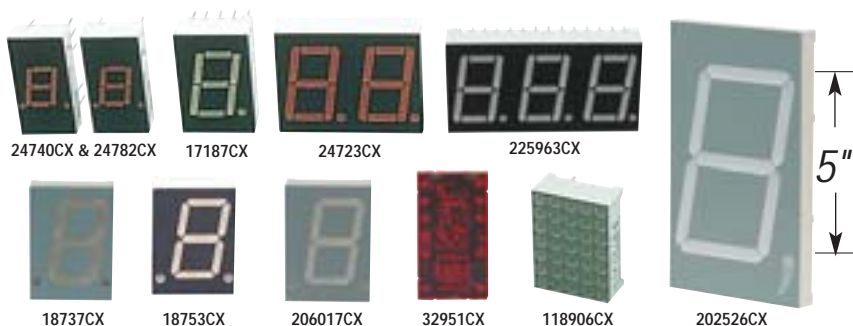
- Lower power consumption
- Longer lifetime (averaged more than 300,000 hours)
- Compact size suitable for instrumentation and graphic representations

Soldering:

- Soldering bath: not more than 5 seconds @ 260°C
- Soldering iron: not more than 3 seconds @ 300°C under 30W



Quantity
SAVE



Optos

7-Segment Displays

| Part No. | Mfr. Cross Reference No. | Character Height | Illuminated Color | Buss Polarity* | Pins/ Leads | Typical Vf @ If (mA) | Typical mcd @ mA | Wavelength nm | Decimal Point # | Pricing | | | |
|----------|--------------------------|------------------|-------------------|----------------|-------------|----------------------|------------------|---------------|-----------------|-------------|-------------|-------------|-------------|
| | | | | | | | | | | 1 | 10 | 100 | 1000 |
| 24731CX | LSD3021-11 | .300" | Red | CA | 11 | 1.9 @ 20 | 0.3 @ 20 | 697 | RHDP | \$.87 | \$.70 | \$.50 | \$.47 |
| 24740CX | LSD3221-11 | .300" | Red | CA | 11 | 2.1 @ 20 | 2.5 @ 20 | 697 | LHDP | .79 | .72 | .64 | .58 |
| 151976CX | LTS312AY | .300" | Yellow | CA | 11 | 2.8 @ 20 | 2.0 @ 10 | 585 | LHDP | .34 | .31 | .28 | .26 |
| 24782CX | LSD3211-11 | .300" | Red | CC | 10 | 2.1 @ 20 | 2.5 @ 20 | 697 | RHDP | .89 | .75 | .65 | .49 |
| 17187CX | LSD5051-11 | .500" | Red | CC | 10 | 2.1 @ 20 | 0.9 @ 20 | 697 | RHDP | .89 | .80 | .72 | .65 |
| 17208CX | LSD5061-11 | .500" | Red | CA | 10 | 2.1 @ 20 | 0.9 @ 20 | 697 | RHDP | .89 | .75 | .65 | .49 |
| 104213CX | LSD5124-10 | .560" | Orange Red | CA | 10 | 2.0 @ 20 | 2.4 @ 20 | 635 | RHDP | .89 | .80 | .71 | .55 |
| 199531CX | LSD5111-11 | .560" | Red | CC | 10 | 2.1 @ 20 | 0.8 @ 20 | 697 | RHDP | .99 | .89 | .71 | .53 |
| 24715CX | LDD5121-20 | .560" | Red | 2-digit CA | 18 | 2.1 @ 20 | 0.8 @ 20 | 697 | RHDP | 1.25 | 1.05 | .89 | .75 |
| 24723CX | LDD5111-11 | .560" | Red | 2-digit CC | 18 | 2.1 @ 20 | 0.8 @ 20 | 697 | RHDP | 1.25 | 1.05 | .89 | .75 |
| 200379CX | LB602VAGI | .560" | Red | 2-digit CA | 18 | 2.0 @ 10 | 16 @ 10 | 650 | RHDP | 1.25 | 1.15 | .89 | .69 |
| 24694CX | LDD5124 | .560" | Orange Red | 2-digit CA | 18 | 2.0 @ 20 | 2.4 @ 20 | 635 | RHDP | 1.39 | 1.25 | .99 | .75 |
| 24707CX | LDD5114-20 | .560" | Orange Red | 2-digit CC | 18 | 2.0 @ 20 | 2.4 @ 20 | 635 | RHDP | 1.35 | 1.15 | .99 | .89 |
| 200539CX | ELD556YWA | .560" | Yellow | 2-digit CA | 18 | 2.0 @ 20 | 1.9 @ 10 | 590 | RHDP | 1.25 | 1.09 | .89 | .69 |
| 225963CX | KW3-562A2B | .560" | Green | 3-digit CA | 28 | 2.2 @ 20 | 15 @ 20 | 568 | RHDP | 2.39 | 2.15 | 1.95 | 1.25 |
| 199582CX | LC56311 | .560" | Yellow | CC | 8 | 2.1 @ 20 | 5.2 @ 20 | 589 | RHDP | 1.49 | 1.25 | 1.09 | .79 |
| 18737CX | LSD816-11 | .800" | Orange Red | CA | 13 | 1.6 @ 20 | 0.9 @ 20 | 655 | RHDP | 1.49 | 1.35 | 1.19 | .99 |
| 18753CX | LSD8151-10 | .800" | Red | CC | 13 | 2.1 @ 20 | 1.0 @ 20 | 697 | RHDP | 1.49 | 1.35 | 1.19 | .99 |
| 206017CX | SC08-11HWA | .800" | Red | CC | 13 | 2.0 @ 20 | .36 @ 10 | 700 | RHDP | 1.49 | 1.35 | 1.19 | .94 |
| 176559CX | C8021-1 | .800" | Green | CC | 13 | 2.0 @ 20 | 0.9 @ 20 | 568 | RHDP | .49 | .44 | .35 | .26 |
| 97172CX | LSD10061-10 | 1.0" | Red | CA | 10 | 2.1 @ 20 | 2.0 @ 20 | 697 | RHDP | 1.39 | 1.25 | 1.12 | .99 |
| 97199CX | LSD23265-10 | 2.24" | Red | CA | 10 | 1.7 @ 20 | 21 @ 20 | 660 | RHDP | 5.75 | 5.19 | 4.69 | 4.19 |
| 97201CX | LSD23255-10 | 2.24" | Red | CC | 10 | 1.7 @ 20 | 21 @ 20 | 660 | RHDP | 4.49 | 3.95 | 3.25 | 2.95 |
| 202518CX | LSD30165-20 | 3.0" | Orange Red | CA | 10 | 8 @ 20 | 4.5 @ 10 | 635 | RHDP | 7.39 | 6.99 | 6.65 | 6.29 |
| 202542CX | LSD30155-20 | 3.0" | Orange Red | CC | 10 | 8 @ 20 | 4.5 @ 10 | 635 | RHDP | 5.49 | 4.95 | 4.45 | 4.05 |
| 105591CX | LSD40054-20† | 4.0" | Orange Red | CC | 10 | 2.0 @ 20 | 18 @ 20 | 635 | RHDP | 9.49 | 8.29 | 7.49 | 6.49 |
| 202500CX | LSD40064-20 | 4.0" | Orange Red | CA | 10 | 2.0 @ 20 | 18 @ 10 | 635 | RHDP | 10.49 | 9.49 | 8.59 | 7.79 |
| 202526CX | LSD50065-20 | 5.0" | Red | CA | 10 | 17 @ 20 | 45 @ 10 | 660 | RHDP | 34.99 | 27.89 | 25.29 | 22.79 |
| 202534CX | LSD50055-20 | 5.0" | Red | CC | 10 | 17 @ 20 | 45 @ 10 | 660 | RHDP | 17.95 | 14.35 | 12.95 | 11.65 |

† 5 diodes per segment

Dot Matrix Displays

| Part No. | Mfr. Cross Reference No. | Jameco Socket Number | Character Height | Illuminated Color | Buss Polarity* | Pins/ Leads | Typical Vf @ If (mA) | Typical mcd @ mA | Wavelength nm | Decimal Point # | Pricing | | | |
|----------|--------------------------|----------------------|------------------|-------------------|-------------------|-------------|----------------------|------------------|---------------|-----------------|---------|--------|--------|---------------|
| | | | | | | | | | | | 1 | 10 | 100 | 1000 |
| 173833CX | HP5082-7300 | — | .290" | Red | 4x7 Numeric | 8 | 5.0 @ 170 | .03 @ 20 | 660 | RHDP | \$4.95 | \$4.46 | \$3.56 | \$2.67 |
| 32951CX | TIL311 | 37161CX | .300" | Red | 4x7 Hex character | 11 | 5.0 @ 5 | 0.1 @ 5 | 660 | — | 16.95 | 14.35 | 12.92 | 11.62 |
| 118906CX | LTP747R | 37161CX | .680" | Orange Red | 5 x 7 AC/CR | 12 | 1.7 @ 20 | 0.2 @ 20 | 655 | — | 1.95 | 1.79 | 1.45 | 1.05 |
| 218843CX | CSM57041T-11 | — | .700" | Red | 5 x 7 CC/AR | 12 | 1.8 @ 20 | 8 @ 20 | 660 | — | 1.95 | 1.55 | 1.17 | .82 |
| 206560CX | LTP2157AG | — | 2.0" | Green | 5 x 7 CC/AR | 14 | 3.7 @ 80 | 4.8 @ 80 | 565 | — | 4.49 | 3.55 | 3.27 | 3.09 |
| 183265CX | LMD5821ASR-20 | — | 2.3" | Red | 5 x 8 CC/AR | 14 | 1.7 @ 20 | 12 @ 20 | 660 | — | 4.95 | 4.45 | 4.99 | 3.35 |

* CA-Common Anode/CC-Common Cathode/AC-Anode Column/CR-Cathode Row/AR-Anode Row

LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point



Cluster-Type T1 1/4 LED Lamps

- Cluster-type red/green T1 1/4 LEDs
- 660nm for red/570nm for green
- Lens: water clear • Common anode • 3 lead wires

150914CX: 50 Cluster (30 green/20 red)

150922CX: 14 Cluster (8 green/6 red)

Quantity
SAVE

150914CX



| Part No. | Product No. | Vf @ If | mcd @ mA | Lead Wire | Mounting Hole Dia. | Dimensions (Dia. x L) | Pricing | | |
|----------|-------------|--------------|-------------|-----------|--------------------|-----------------------|---------|---------|----------------|
| | | | | | | | 1 | 10 | 100 |
| 150914CX | LCR5250A-79 | 20.5V @ 40mA | 12,000 @ 40 | 16" | M4 | 2.07 x 1.98 | \$19.95 | \$16.96 | \$12.72 |
| 150922CX | LCR2614B-79 | 10V @ 20mA | 1950 @ 20 | 7" | M3 | 1.02 x 1.51 | 4.95 | 4.49 | 3.95 |

See page 37 for our complete selection of Optoisolators.

Incandescent and Neon Panel Mount Indicators

Color Code Legend
New Sale Qty. Save

Incandescent Panel Mount Lamps

- 215781CX/215790CX/215773CX: wire length - 3.9" (100mm)
- 215749CX/215757CX/215765CX: wire length - 4.9" (125mm)
- 215714CX/215722CX/215731CX: solder terminals - 0.196" (5mm)



215790CX
Fig. 1



215757CX
Fig. 2



215714CX
Fig. 3

| Part No. | Mfr. Cross Ref. No. | Fig. | Voltage | Color | Mounting Hole | Pricing | | |
|----------|---------------------|------|---------|--------|---------------|---------|--------|--------|
| | | | | | | 1 | 10 | 100 |
| 215773CX | R9-46B-W100-12V-R | 1 | 12 | Red | 1/2" (13mm) | \$1.79 | \$1.59 | \$1.35 |
| 215781CX | R9-46B-W100-12V-Y | 1 | 12 | Yellow | 1/2" (13mm) | 1.79 | 1.59 | 1.35 |
| 215790CX | R9-46B-W100-12V-G | 1 | 12 | Green | 1/2" (13mm) | 1.79 | 1.59 | 1.35 |
| 215749CX | R9-55B-W130-12V-R | 2 | 12 | Red | 9/32" (7mm) | 1.79 | 1.59 | 1.35 |
| 215757CX | R9-55B-W130-12V-Y | 2 | 12 | Yellow | 9/32" (7mm) | 1.79 | 1.59 | 1.35 |
| 215765CX | R9-55B-W130-12V-G | 2 | 12 | Green | 9/32" (7mm) | 1.79 | 1.59 | 1.35 |
| 215714CX | R9-71B-05-12V-R | 3 | 12 | Red | 5/8" (16mm) | 1.79 | 1.59 | 1.35 |
| 215722CX | R9-71B-05-12V-Y | 3 | 12 | Yellow | 5/8" (16mm) | 1.79 | 1.59 | 1.35 |
| 215731CX | R9-71B-05-12V-G | 3 | 12 | Green | 5/8" (16mm) | 1.79 | 1.59 | 1.35 |

Neon Panel Mount Lamps

- Input voltage: 120V
- Mounting hole diameter: 5/8" (16mm)
- Solder terminals: 0.196" (5mm)

215802CX: Red

215811CX: Yellow

215829CX: Green

215802CX



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 100 |
|----------|-----------------------|--------|--------|--------|
| 215802CX | R9-71N-05-120V-R .. | \$1.79 | \$1.59 | \$1.35 |
| 215811CX | R9-71N-05-120V-Y | 1.79 | 1.59 | 1.35 |
| 215829CX | R9-71N-05-120V-G | 1.79 | 1.59 | 1.35 |

Opening an account is easy!!

Corporate Customers

Call 1-800-831-4242
for details today.

Lamps and LED Accessories



T1 & T1 3/4 Cliplite® Lens and Conxrite® Cable Assembly

Cliplite® Lens: • Material: (lens) polycarbonate: (ring) polypropylene (UL Listed)
• Mounts through front panel in 0.171" hole diameter, panel thickness: 1/32" to 3/32"

Conxrite® Cable Assembly: • Terminals: phosphor bronze, tin-plated
• Connector socket and ring/header connector: thermoplastic (UL Listed)
• Wire: 22AWG, 7 strand copper, insulated



| Part No. | Product No. | Size | Description | 1 | 10 | 100 | 1000 |
|----------|-------------|--------|----------------------|--------|--------|--------|--------|
| 143183CX | SMC170CTP | T1 | Clear Cliplite® lens | \$0.22 | \$0.20 | \$0.15 | \$0.13 |
| 143132CX | CMC321CTP | T1 3/4 | Clear Cliplite® lens | .25 | .22 | .19 | .16 |
| 143087CX | BE2108 | T1 | 8.5" cable assembly | 1.25 | 1.13 | .93 | .86 |
| 143036CX | CE2108 | T1 3/4 | 8.5" cable assembly | 1.29 | 1.25 | 1.19 | 1.15 |
| 143052CX | CE2118 | T1 3/4 | 18" cable assembly | 1.55 | 1.39 | 1.20 | 1.09 |

LED Panel-Mount Indicators

- Easy panel installation
- Panel/status/instrument indicators

141111CX/141129CX/141137CX: Chrome housing

236427CX/236419CX: Black nylon housing

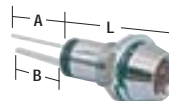
Quantity
SAVE



236427CX



141111CX



141129CX/141137CX

236419CX

| Part No. | Mfr. Cross Ref. No. | LED Size | Color | Dimensions (in.) | | | Mounting Hole | Vf @ If | Pricing | | | | |
|----------|---------------------|----------|-------|------------------|-----|-----|---------------|------------|---------|--------|--------|--------|--------|
| | | | | L | A | B | | | 1 | 10 | 100 | 1000 | |
| 236427CX | 5102H5-12V | T1 3/4 | Green | .53 | 6.0 | 6.0 | .25" | 12V @ 15mA | \$1.49 | \$1.25 | \$1.13 | \$.99 | \$.79 |
| 236419CX | 5102H1-12V | T1 3/4 | Red | .53 | 6.0 | 6.0 | .25" | 12V @ 15mA | 1.19 | 1.07 | .86 | | .64 |
| 141111CX | L922SRD | T1 | Red | .56 | .34 | .25 | .23" | 12V @ 20mA | .79 | .60 | .52 | | .45 |
| 141129CX | L913RD | T1 | Red | .56 | .39 | .32 | .24" | 12V @ 20mA | 1.09 | .81 | .69 | | .61 |
| 141137CX | L917RD | T1 3/4 | Red | .70 | .55 | .47 | .31" | 12V @ 20mA | .89 | .79 | .71 | | .55 |

Cold Cathode Lamp Kits and Bulbs

Add brilliant colors to dull, old PC cases with these cold cathode lamps and bulbs. Each kit plugs directly into an open power supply connector, and includes dual outputs for an extra bulb. A PCI bracket switch provides convenient on/off control. Available in super bright green, red, and blue colors adding vibrant colors to your PC cases. Kits includes power supply and 1 cold cathode lamp.

- Length: 14"

| Part No. | Mfr. Cross Ref. No. | Description | 1 | 10 | 25 |
|----------|---------------------|-----------------------|---------|---------|---------|
| 263257CX | 29420 | Blue light kit | \$19.95 | \$18.95 | \$17.95 |
| 263265CX | 29421 | Red light kit | 19.95 | 18.95 | 17.95 |
| 263273CX | 29422 | Green light kit | 19.95 | 18.95 | 17.95 |
| 263290CX | 29424 | Blue bulb | 10.95 | 10.45 | 9.95 |
| 263302CX | 29425 | Red bulb | 10.95 | 10.45 | 9.95 |
| 263281CX | 29426 | Green bulb | 10.95 | 10.45 | 9.95 |



Electroluminescence Wires

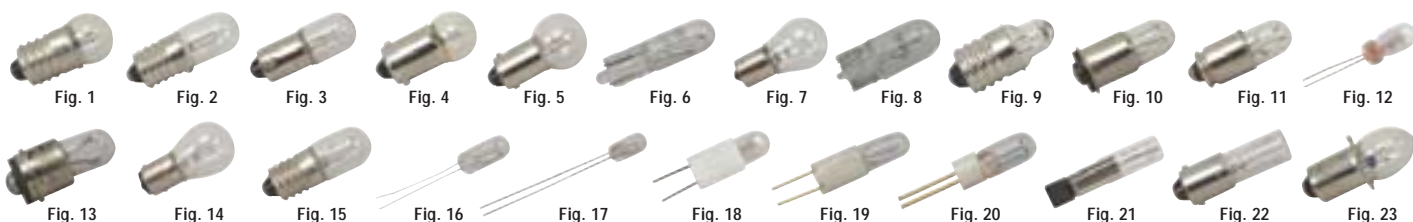


Imagine the possibilities of transforming ordinary objects with high tech visual effects. Wrap these fluorescent wires around any objects such as musical instruments, models, science projects, and presentation boards. Super charge your projects with brilliant colors.

- Powered by 2 AA batteries
- Length: 4.5'

velleman

| Part No. | Product No. | Color | 1 | 10 | 25 |
|----------|-------------|-------------|---------|---------|---------|
| 263484CX | NWRB15 | Blue | \$21.95 | \$20.95 | \$19.95 |
| 263505CX | NWRG15 | Green | 21.95 | 20.95 | 19.95 |
| 263492CX | NWRR15 | Red | 21.95 | 20.95 | 19.95 |



Incandescent Lamps

SALE

* Prepackaged: order in increments of 5, 10 or 100

| Part No. | Mfr. Cross Ref. No. | Fig. | Description | Volts (VDC) | MSCP | Pricing | | | |
|----------|---------------------|------|--------------------------|-------------|------|------------------|------------------|------------------|------------------|
| | | | | | | 1 | 5 | 10 | 100 |
| 209381CX | 13 | 1 | G3 1/2 miniature screw | 3.7 | .98 | \$.79 | \$.75 | \$.69 | .59 |
| 209390CX | 14 | 1 | G3 1/2 miniature screw | 2.47 | .50 | .55 | .52 | .49 | .45 |
| 209402CX | 40 | 2 | T3 1/4 miniature screw | 6.3 | .50 | * | .29 | .19 | .15 |
| 209411CX | 44 | 3 | T3 1/4 miniature bayonet | 6.3 | .90 | * | .22 | .17 | .13 |
| 209429CX | 46 | 2 | T3 1/4 miniature screw | 6.3 | .90 | * | .37 | .32 | .27 |
| 209437CX | 47 | 3 | T3 1/4 miniature bayonet | 6.3 | .50 | * | .22 | .17 | .13 |
| 209445CX | 50 | 1 | G3 1/2 miniature bayonet | 7.5 | 1.0 | \$.59 | \$.54 | \$.49 | \$.44 |
| 210403CX | 51 | 4 | G3 1/2 miniature bayonet | 7.5 | 1.0 | * | .35 | .29 | .24 |
| 209453CX | 53 | 4 | G3 1/2 miniature bayonet | 14.4 | 1.0 | .49 | .44 | .39 | .29 |
| 210411CX | 55 | 5 | G4 1/2 miniature bayonet | 7.0 | 2.0 | * | .20 | .14 | .09 |
| 209461CX | 73 | 6 | T1 3/4 wedge | 14.0 | .30 | * | .24 | .19 | .16 |
| 209470CX | 85 | 6 | T1 3/4 wedge | 28.0 | .30 | * | .24 | .21 | .17 |
| 209488CX | 86 | 6 | T1 3/4 wedge | 6.3 | .40 | * | .24 | .19 | .15 |
| 209496CX | 93 | 7 | S-8 snl contact bayonet | 12.8 | 15.0 | .59 | \$.54 | \$.49 | \$.44 |
| 209509CX | 161 | 8 | T3 1/4 wedge | 14.0 | 1.0 | * | .25 | .19 | .15 |
| 209517CX | 168 | 8 | T3 1/4 wedge | 14.0 | 3.0 | * | .24 | .19 | .14 |
| 209525CX | 194 | 8 | T3 1/4 wedge | 14.0 | 2.0 | * | .24 | .19 | .14 |
| 209533CX | 222 | 9 | GTL-3 miniature screw | 2.25 | — | * | .29 | .24 | .22 |
| 209541CX | 259 | 8 | T3 1/4 wedge | 6.3 | .65 | * | .24 | .19 | .16 |
| 209550CX | 313 | 3 | T3 1/4 miniature bayonet | 28.0 | 3.5 | * | .25 | .19 | .16 |
| 209568CX | 327 | 10 | T1 3/4 midget flange | 28.0 | .34 | * | .29 | .24 | .22 |
| 209576CX | 328 | 10 | T1 3/4 midget flange | 6.0 | .60 | .49 | .44 | .39 | .34 |
| 209584CX | 330 | 10 | T1 3/4 midget flange | 14.0 | .50 | * | .39 | .34 | .29 |
| 209592CX | 334 | 11 | T1 3/4 midget groove | 28.0 | .34 | * | .39 | .35 | .29 |
| 209605CX | 335 | 15 | T1 3/4 midget screw | 28.0 | .34 | .49 | .44 | .39 | .32 |
| 209613CX | 344 | 10 | T1 3/4 midget flange | 10.0 | .002 | .99 | .89 | .79 | .69 |
| 209621CX | 345 | 10 | T1 3/4 midget flange | 6.0 | .03 | .59 | .49 | .45 | .35 |
| 209630CX | 370 | 10 | T1 3/4 midget flange | 18.0 | .15 | \$.99 | \$.89 | \$.79 | \$.69 |
| 209648CX | 376 | 10 | T1 3/4 midget flange | 28.0 | .34 | \$.69 | \$.59 | \$.49 | \$.39 |
| 209656CX | 379 | 11 | T1 3/4 midget groove | 6.3 | .40 | \$.99 | \$.89 | \$.79 | \$.69 |
| 209664CX | 381 | 10 | T1 3/4 midget flange | 6.3 | .40 | .49 | .45 | .39 | .29 |
| 209672CX | 382 | 10 | T1 3/4 midget flange | 14.0 | .30 | .49 | .45 | .39 | .29 |
| 209681CX | 385 | 10 | T1 3/4 midget flange | 28.0 | .15 | .49 | .45 | .38 | .29 |
| 209699CX | 386 | 11 | T1 3/4 midget groove | 14.0 | .30 | * | .39 | .33 | .27 |
| 209701CX | 387 | 10 | T1 3/4 midget flange | 28.0 | .30 | * | .37 | .25 | .23 |
| 209710CX | 388 | 11 | T1 3/4 midget groove | 28.0 | .30 | * | .35 | .29 | .25 |
| 209728CX | 394 | 10 | T1 3/4 midget flange | 12.0 | .12 | .49 | .45 | .39 | .32 |
| 209736CX | 656 | 8 | T3 1/4 wedge | 28.0 | .62 | * | .24 | .19 | .15 |
| 209752CX | 657 | 8 | T3 1/4 wedge | 28.0 | .62 | * | .25 | .20 | .15 |
| 202100CX | 683 | 12 | T1 wire terminal | 5.0 | .05 | .49 | .39 | .35 | .28 |
| 209761CX | 685 | 13 | T1 sub midget flange | 5.0 | .05 | \$.29 | \$.99 | \$.89 | \$.79 |
| 209779CX | 715 | 12 | T1 wire terminal | 5.0 | .15 | \$.99 | \$.89 | \$.79 | \$.69 |
| 209787CX | 755 | 3 | T3 1/4 miniature bayonet | 6.3 | .33 | .49 | .44 | .37 | .30 |
| 209795CX | 756 | 3 | T3 1/4 miniature bayonet | 14.0 | .31 | \$.69 | \$.59 | \$.49 | \$.39 |
| 209808CX | 757 | 3 | T3 1/4 miniature bayonet | 28.0 | .62 | * | .35 | .32 | .27 |
| 210438CX | 1156 | 7 | S-8 snl contact bayonet | 12.8 | 32 | .49 | .45 | .39 | .35 |
| 210446CX | 1157 | 14 | S-8 double contact index | 12.8/14 | 32/3 | * | .39 | .35 | .29 |
| 209816CX | 1450 | 4 | G3 1/2 miniature bayonet | 24.0 | .23 | .99 | .89 | .79 | .69 |
| 209824CX | 1813 | 3 | T3 1/4 miniature bayonet | 14.4 | .86 | * | .29 | .24 | .22 |
| 209832CX | 1815 | 3 | T3 1/4 miniature bayonet | 14.0 | 1.4 | .49 | .39 | .29 | .25 |
| 209841CX | 1816 | 3 | T3 1/4 miniature bayonet | 13.0 | 3.0 | * | .29 | .24 | .19 |
| 209859CX | 1818 | 3 | T3 1/4 miniature bayonet | 24.0 | 3.3 | .99 | .89 | .79 | .69 |
| 209867CX | 1819 | 3 | T3 1/4 miniature bayonet | 28.0 | .34 | * | .25 | .19 | .15 |
| 209875CX | 1820 | 3 | T3 1/4 miniature bayonet | 28.0 | 1.6 | .49 | .39 | .34 | .24 |
| 209883CX | 1821 | 15 | T3 1/4 screw | 28.0 | 3.4 | .99 | .89 | .79 | .69 |
| 209891CX | 1822 | 3 | T3 1/4 miniature bayonet | 36.0 | 2.1 | .49 | .39 | .29 | .25 |
| 209904CX | 1829 | 3 | T3 1/4 miniature bayonet | 28.0 | 1.0 | * | .29 | .24 | .19 |

Incandescent Lamps (Continued)

* Prepackaged: order in increments of 5, 10 or 100

| Part No. | Mfr. Cross Ref. No. | Fig. | Description | Volts (VDC) | MSCP | Pricing | | | |
|----------|---------------------|------|------------------------------|-------------|------|------------------|------------------|------------------|------------------|
| | | | | | | 1 | 5 | 10 | 100 |
| 209912CX | 1835 | 3 | T3 1/4 miniature bayonet | 55.0 | 1.1 | \$.49 | \$.39 | \$.29 | .24 |
| 209921CX | 1847 | 3 | T3 1/4 miniature bayonet | 6.3 | .38 | \$.59 | \$.49 | \$.39 | .29 |
| 209939CX | 1850 | 3 | T3 1/4 miniature bayonet | 5.0 | .25 | \$.59 | \$.49 | \$.39 | .29 |
| 209947CX | 1864 | 3 | T3 1/4 miniature bayonet | 28.0 | 3.0 | \$.69 | \$.49 | \$.39 | .29 |
| 209955CX | 1866 | 3 | T3 1/4 miniature bayonet | 6.3 | .65 | * | .39 | .29 | .19 |
| 209963CX | 1891 | 3 | T3 1/4 miniature bayonet | 14.0 | 2.0 | .49 | \$.39 | \$.29 | .19 |
| 209971CX | 1893 | 3 | T3 1/4 miniature bayonet | 14.0 | 2.0 | \$.59 | \$.49 | \$.39 | .29 |
| 141073CX | 2182 | 16 | T1 3/4 wire terminal | 14.0 | .30 | \$.59 | \$.49 | \$.44 | \$.39 |
| 141065CX | 2200 | 16 | T1 3/4 wire terminal | 5.0 | .05 | .59 | .54 | .49 | .44 |
| 141057CX | 6833 | 17 | T 3/4 wire terminal | 5.0 | .05 | 1.29 | 1.15 | .99 | .89 |
| 209998CX | 7219 | 12 | T1 wire terminal | 12.0 | .15 | * | .29 | .25 | .19 |
| 210008CX | 7328 | 18 | T1 3/4 bi-pin | 6.0 | .60 | \$.99 | \$.89 | \$.79 | \$.69 |
| 210016CX | 7335 | 10 | T1 3/4 midget flange | 5.0 | .15 | \$.79 | \$.69 | \$.59 | \$.49 |
| 210024CX | 7341 | 10 | T1 3/4 midget flange | 28.0 | .65 | \$.69 | \$.69 | \$.59 | \$.49 |
| 141006CX | 7361 | 18 | T1 3/4 bi-pin | 5.0 | .05 | \$.29 | \$.89 | \$.79 | \$.69 |
| 210032CX | 7382 | 18 | T1 3/4 bi-pin | 14.0 | .30 | .49 | \$.39 | \$.35 | .29 |
| 210041CX | 7387 | 18 | T1 3/4 bi-pin | 28.0 | .30 | \$.59 | \$.49 | \$.45 | \$.39 |
| 210059CX | 7632 | 19 | T1 1/4 bi-pin | 28.0 | .32 | \$.29 | \$.99 | \$.89 | \$.79 |
| 210067CX | 7683 | 20 | T1 bi-pin | 5.0 | .05 | \$.49 | \$.19 | \$.99 | \$.89 |
| 210075CX | 7715 | 20 | T1 bi-pin | 5.0 | .15 | \$.39 | \$.19 | \$.99 | \$.89 |
| 210083CX | 7839 | 20 | T1 bi-pin | 28.0 | .15 | \$.39 | \$.19 | \$.99 | \$.89 |
| 210227CX | 6PSB | 21 | T2 tel. slide base type 5 | 6.0 | 550 | .79 | .69 | .59 | .49 |
| 210112CX | 12ESB | 21 | T2 tel. slide base type 5 | 12.0 | 650 | \$.79 | \$.69 | \$.59 | \$.49 |
| 210121CX | 12PSB | 21 | T2 tel. slide base type 5 | 12.0 | 2000 | \$.69 | \$.65 | \$.59 | \$.49 |
| 210139CX | 24ESB | 21 | T2 tel. slide base type 5 | 24.0 | 850 | .69 | .65 | .59 | .49 |
| 210147CX | 24MB | 22 | T2 miniature bayonet | 24.0 | 3000 | .99 | .89 | .79 | .69 |
| 210155CX | 24PSB | 21 | T2 tel. slide base type 5 | 24.0 | 3000 | .59 | .55 | .49 | .45 |
| 210163CX | 28ESB | 21 | T2 tel. slide base type 5 | 28.0 | 1500 | .79 | .69 | .59 | .49 |
| 210171CX | 28MB | 22 | T2 miniature bayonet | 28.0 | 1600 | \$.99 | \$.89 | \$.79 | \$.69 |
| 210180CX | 28PSB | 21 | T2 tel. slide base type 5 | 28.0 | 1600 | \$.79 | \$.69 | \$.59 | \$.45 |
| 210198CX | 48PSB | 21 | T2 tel. slide base type 5 | 48.0 | 1800 | .89 | .79 | .69 | .59 |
| 210201CX | 60MB | 22 | T2 miniature bayonet | 60.0 | 2200 | \$.99 | \$.89 | \$.79 | \$.69 |
| 210219CX | 60PSB | 21 | T2 tel. slide base type 5 | 60.0 | 2200 | .69 | .59 | .55 | .55 |
| 210091CX | 120MB | 22 | T2 miniature bayonet | 120 | 1200 | \$.99 | \$.69 | \$.65 | \$.59 |
| 210104CX | 120PSB | 21 | T2 tel. slide base type 5 | 120 | 1200 | \$.69 | \$.65 | \$.59 | .55 |
| 210340CX | PR2 | 23 | B3 1/2 snl cont. mini flange | 2.38 | .80 | * | .24 | .20 | .15 |
| 210358CX | PR3 | 23 | B3 1/2 snl cont. mini flange | 3.57 | 1.5 | * | .24 | .20 | .15 |
| 210366CX | PR4 | 23 | B3 1/2 snl cont. mini flange | 2.33 | .40 | * | .24 | .20 | .15 |
| 210374CX | PR6 | 23 | B3 1/2 snl cont. mini flange | 2.47 | .45 | * | .24 | .20 | .15 |



Neon Lamps

* Prepackaged: order in increments of 5, 10 or 100

| Part No. | Mfr. Cross Ref. No. | Fig. | Description | Voltage (VAC) | Pricing | | | |
|----------|---------------------|------|--------------------------|---------------|------------------|------------------|------------------|-----------------|
| | | | | | 1 | 5 | 10 | 100 |
| 27351CX | A1A (NE-2) | 1 | Wire terminal | 65-120 | * | \$.35 | \$.31 | .26 |
| 210243CX | A1B | 1 | Wire terminal | 65-120 | * | .28 | .25 | .24 |
| 210251CX | A1C | 1 | Wire terminal | 65-120 | * | .39 | .29 | .25 |
| 210260CX | A9A (NE-2E) | 1 | Wire terminal | 65-120 | * | .29 | .25 | .19 |
| 210278CX | B1A (NE-51) | 2 | T3 1/4 miniature bayonet | 65-120 | .79 | .75 | .69 | .59 |
| 210286CX | B2A (NE-51H) | 2 | T3 1/4 miniature bayonet | 65-120 | .69 | .59 | .49 | .39 |
| 210294CX | B7A (NE-45) | 3 | T4 1/2 candelabra screw | 65-120 | \$.75 | \$.99 | 3.49 | 2.99 |
| 210307CX | B9A (NE-48) | 4 | T4 1/2 D.C. bayonet | 65-120 | \$.99 | 2.99 | 2.49 | 1.99 |
| 210315CX | C2A (NE-2H) | 1 | Wire terminal | 65-120 | * | .39 | .35 | .26 |

Surface Mount Capacitors and Resistors

Color Code Legend
New Sale Qty. Save



193009CX Tape and Reel



193009CX

New Lower Prices

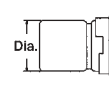
Aluminum Electrolytic Capacitors

| | |
|--|----------------|
| Operating temperature range | -40°C to +85°C |
| Leakage Current (20°C) after 2 minutes | ≤ .01CV or 3μA |

* Prepackaged: order in increments of 10, 100 or 500

| Part No. | Mfr. Cross Ref. No.† | Value (μF) | Voltage | Dia. (mm) | Pricing | | | |
|----------|----------------------|------------|---------|-----------|----------|--------|--------|-----|
| | | | | | 1 | 10 | 100 | 500 |
| 193228CX | SE1/50 | 1 | 50 | 4.0 | * \$.15 | \$.12 | \$.09 | |
| 193236CX | SE2.2/50 | 2.2 | 50 | 4.0 | * .15 | .12 | .09 | |
| 193244CX | SE3.3/50 | 3.3 | 50 | 4.0 | * .15 | .13 | .10 | |
| 193076CX | SE427/25 | 4.7 | 25 | 4.0 | * .16 | .13 | .096 | |
| 193252CX | SE4.7/50 | 4.7 | 50 | 5.0 | * .17 | .14 | .105 | |
| 192997CX | SE10/16 | 10 | 16 | 4.0 | * .16 | .13 | .096 | |
| 193084CX | SE10/25 | 10 | 25 | 5.0 | * .16 | .13 | .096 | |
| 193164CX | SE10/35 | 10 | 35 | 5.0 | * .18 | .14 | .11 | |
| 193261CX | SE10/50 | 10 | 50 | 6.3 | * .23 | .18 | .14 | |
| 192891CX | SE22/6.3 | 22 | 6.3 | 4.0 | * .22 | .15 | .12 | |
| 193009CX | SE22/16 | 22 | 16 | 5.0 | * .14 | .11 | .084 | |
| 193092CX | SE22/25 | 22 | 25 | 6.3 | * .18 | .14 | .11 | |
| 193172CX | SE22/35 | 22 | 35 | 6.3 | * .17 | .14 | .10 | |
| 193279CX | SE22/50 | 22 | 50 | 6.3 | * .26 | .19 | .15 | |
| 193017CX | SE33/16 | 33 | 16 | 5.0 | * .17 | .14 | .10 | |
| 193105CX | SE33/25 | 33 | 25 | 6.3 | * .22 | .19 | .14 | |
| 193181CX | SE33/35 | 33 | 35 | 8.0 | .29 | .25 | .23 | .20 |
| 193287CX | SE33/50 | 33 | 50 | 8.0 | .35 | .32 | .28 | .25 |
| 193025CX | SE47/16 | 47 | 16 | 6.3 | * .17 | .14 | .115 | |
| 193113CX | SE47/25 | 47 | 25 | 6.3 | .39 | .24 | .21 | .18 |
| 193199CX | SE47/35 | 47 | 35 | 6.3 | * .24 | .16 | .13 | |

† Cross Reference: Panasonic: VS Series



Side View



Bottom View

* Prepackaged: order in increments of 10, 100 or 500

| Part No. | Mfr. Cross Ref. No.† | Value (μF) | Voltage | Dia. (mm) | Pricing | | | |
|----------|----------------------|------------|---------|-----------|---------|--------|--------|--------|
| | | | | | 1 | 10 | 100 | 500 |
| 193295CX | SE47/50 | 47 | 50 | 10.0 | \$.35 | \$.29 | \$.25 | \$.23 |
| 192903CX | SE100/6.3 | 100 | 6.3 | 6.3 | * .24 | .17 | .115 | |
| 192954CX | SE100/10 | 100 | 10 | 6.3 | * .19 | .16 | .12 | |
| 193033CX | SE100/16 | 100 | 16 | 8.0 | * .26 | .23 | .21 | |
| 193121CX | SE100/25 | 100 | 25 | 8.0 | .39 | .35 | .28 | .21 |
| 193201CX | SE100/35 | 100 | 35 | 10.0 | .39 | .35 | .32 | .28 |
| 193308CX | SE100/50 | 100 | 50 | 10.0 | .48 | .43 | .39 | .33 |
| 192911CX | SE220/6.3 | 220 | 6.3 | 6.3 | .29 | .27 | .19 | .14 |
| 192962CX | SE220/10 | 220 | 10 | 8.0 | .31 | .29 | .27 | .23 |
| 193041CX | SE220/16 | 220 | 16 | 8.0 | .52 | .45 | .37 | .28 |
| 193130CX | SE220/25 | 220 | 25 | 10.0 | .63 | .57 | .46 | .36 |
| 193210CX | SE220/35 | 220 | 35 | 8.0 | .55 | .50 | .40 | .30 |
| 193316CX | SE220/50 | 220 | 50 | 10.0 | .61 | .55 | .44 | .33 |
| 193050CX | SE330/16 | 330 | 16 | 10.0 | .49 | .36 | .31 | .26 |
| 193148CX | SE330/25 | 330 | 25 | 8.0 | .49 | .44 | .35 | .26 |
| 192920CX | SE470/6.3 | 470 | 6.3 | 8.0 | .46 | .39 | .37 | .35 |
| 192971CX | SE470/10 | 470 | 10 | 10.0 | .45 | .40 | .32 | .28 |
| 193068CX | SE470/16 | 470 | 16 | 10.0 | .52 | .45 | .37 | .19 |
| 193156CX | SE470/25 | 470 | 25 | 10.0 | .61 | .54 | .48 | .43 |
| 192938CX | SE1000/6.3 | 1000 | 6.3 | 10.0 | .56 | .50 | .40 | .30 |
| 192989CX | SE1000/10 | 1000 | 10 | 10.0 | .52 | .47 | .37 | .35 |
| 192946CX | SE1500/6.3 | 1500 | 6.3 | 10.0 | .69 | .55 | .49 | .37 |

Quantity
SAVE

Passives

0805 Resistor Assortment (±5%)

144 Values, 50 pcs. each; 7,200 Pieces Total



Resistance Value Chart:

| | | | | | | | | |
|-----|----|-----|------|------|-----|------|------|------|
| 1.2 | 10 | 75 | 430 | 2.0k | 10k | 51k | 270k | 2.2M |
| 1.6 | 16 | 85 | 470 | 2.2k | 11k | 56k | 300k | 2.4M |
| 2.2 | 18 | 91 | 510 | 2.4k | 12k | 62k | 360k | 2.7M |
| 2.4 | 20 | 110 | 560 | 2.7k | 13k | 68k | 390k | 3.0M |
| 2.7 | 22 | 120 | 620 | 3.0k | 15k | 75k | 430k | 3.3M |
| 3.0 | 24 | 130 | 680 | 3.3k | 16k | 82k | 470k | 3.6M |
| 3.3 | 27 | 150 | 750 | 3.6k | 18k | 91k | 510k | 3.9M |
| 4.3 | 30 | 160 | 820 | 3.9k | 20k | 100k | 560k | 4.3M |
| 4.7 | 33 | 180 | 910 | 4.3k | 22k | 110k | 620k | 4.7M |
| 5.1 | 39 | 200 | 1.0k | 4.7k | 24k | 120k | 750k | 5.1M |
| 5.6 | 43 | 220 | 1.1k | 5.6k | 27k | 150k | 820k | 5.6M |
| 6.2 | 47 | 240 | 1.2k | 6.2k | 30k | 160k | 910k | 6.8M |
| 6.8 | 51 | 270 | 1.3k | 6.8k | 33k | 180k | 1.0M | 7.5M |
| 7.5 | 56 | 300 | 1.5k | 7.5k | 36k | 200k | 1.6M | 8.2M |
| 8.2 | 62 | 360 | 1.6k | 8.2k | 39k | 220k | 1.8M | 9.1M |
| 9.1 | 68 | 390 | 1.8k | 9.1k | 43k | 240k | 2.0M | 10M |

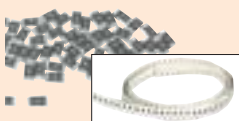
- Size (mm): 2.0L x 1.25W x 0.5Thick
- Max. overload voltage: 200V
- 1/8 watts
- Operating temperature: -50°C to 120°C
- Case size (two cases): 10.5"L x 6.7"W x 1.7"T
- Weight: 1.9 lbs.

Includes: Case with labels

| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 25 |
|----------|---------------------|---------|---------|---------|
| 172806CX | 16-500 | \$79.95 | \$71.95 | \$64.79 |

1206 Resistor Assortment (±1%)

56 Values, 200 pcs. each; 11,200 pcs. Total



Packaged in strips of 200 pcs. each

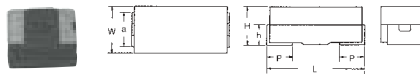
Value Chart (Ohms)

| | | | |
|------|-------|-------|-------|
| 10 | 200 | 3.92k | 75k |
| 12.1 | 243 | 4.99k | 90.9k |
| 15 | 301 | 6.19k | 100k |
| 20 | 392 | 7.5k | 121k |
| 24.3 | 499 | 9.09k | 150k |
| 30.1 | 619 | 10k | 200k |
| 39.2 | 750 | 12.1k | 243k |
| 49.9 | 909 | 15k | 301k |
| 61.9 | 1k | 20k | 392k |
| 75 | 1.21k | 24.3k | 499k |
| 90.9 | 1.5k | 30.1k | 619k |
| 100 | 2k | 39.2k | 750k |
| 121 | 2.43k | 49.9k | 909k |
| 150 | 3.01k | 61.9k | 1M |

- Max. working voltage: 200V
- Power: 1/8W
- Operating temperature: -55°C to +125°C
- Temp. coefficient: ±100 ppm/°C
- Resistor dimensions (mm): 3.10L x 1.5 W x 0.55H

| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 25 |
|----------|---------------------|---------|---------|---------|
| 156881CX | SMR1206SB | \$99.99 | \$89.99 | \$79.99 |

Resin Molded Chip Tantalum Electrolytic Capacitors (±20%)



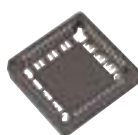
Case Size (Dimensions in mm)

| EIA CASE CODE | L ±0.2 | W ±0.2 | H ±0.2 | P ±0.3 | a ±0.2 | h(min) |
|---------------|--------|--------|--------|--------|--------|--------|
| A (3216) | 3.2 | 1.6 | 1.7 | 0.8 | 1.2 | 0.7 |
| B (3528) | 3.5 | 2.8 | 1.9 | 0.8 | 2.0 | 0.7 |
| C (6032) | 6.0 | 3.2 | 2.5 | 1.3 | 2.0 | 1.0 |
| D (7343) | 7.3 | 4.3 | 2.9 | 1.3 | 2.4 | 1.0 |

| 10V SMT Tantalum | | | Pricing per each | | | |
|------------------|-------------|-----------|------------------|---------|--------|--------|
| Part No. | Capacitance | Case Size | 10 pc. Incremnt | Pricing | | |
| | | | | 100 | 500 | 1000 |
| 87020CX | 10μF | B | \$.18 | \$.15 | \$.12 | \$.09 |
| 87118CX | 100μF | D | .79 | .75 | .72 | .68 |

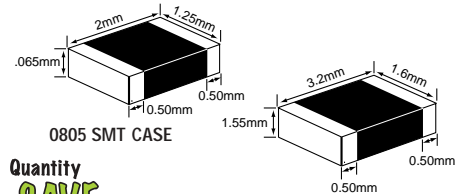
| 16V SMT Tantalum | | | Pricing per each | | | |
|------------------|-------------|-----------|------------------|---------|--------|---------|
| Part No. | Capacitance | Case Size | 10 pc. Incremnt | Pricing | | |
| | | | | 100 | 500 | 1000 |
| 86932CX | 1μF | A | \$.19 | \$.15 | \$.11 | \$.105 |
| 87038CX | 10μF | C | .26 | .23 | .21 | .19 |
| 87100CX | 47μF | D | .86 | .81 | .72 | .63 |

See page 108 for Plastic Fliptop Case for SMDs.



See page 80 for PLCC Surface Mount Sockets.

Multilayer Ceramic Chip Capacitors



0805 SMT CASE

1206 SMT CASE

Quantity
SAVE

X7R SERIES (±10%)

| 0805 SMT Case | | | Pricing per each | | | |
|---------------|-------------|-------|---------------------|---------|--------|---------|
| Part No. | Capacitance | Volt. | 100 pc. Incremnt | Pricing | | |
| | | | | 500 | 1000 | 3000 |
| 87311CX | .01μF | 50 | \$.07 | \$.04 | \$.03 | \$.016 |
| 87370CX | .1μF | 25 | .09 | .06 | .053 | .048 |

| 1206 SMT Case | | | Pricing per each | | | |
|---------------|-------------|-------|----------------------|---------|---------|---------|
| Part No. | Capacitance | Volt. | 100 pc. Increment | Pricing | | |
| | | | | 500 | 1000 | 3000 |
| 87329CX | .01μF | 50 | \$.07 | \$.04 | \$.022 | \$.022 |
| 87388CX | .1μF | 50 | .13 | .05 | .045 | .042 |
| 87396CX | .22μF | 25 | .25 | .22 | .19 | .15 |

Z5U SERIES (±20%)

| 0805 SMT Case | | | Pricing per each | | | |
|---------------|-------------|---------|----------------------|---------|---------|---------|
| Part No. | Capacitance | Voltage | 100 pc. Increment | Pricing | | |
| | | | | 500 | 1000 | 5000 |
| 87177CX | .1μF | 50 | \$0.037 | \$0.029 | \$0.025 | \$0.019 |

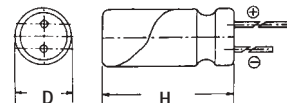
| 1206 SMT Case | | | Pricing per each | | | |
|---------------|-------------|---------|---------------------|---------|---------|---------|
| Part No. | Capacitance | Voltage | 100 pc. Incremnt | Pricing | | |
| | | | | 500 | 1000 | 5000 |
| 87185CX | .1μF | 50 | \$.08 | \$.069 | \$.049 | \$.039 |
| 87206CX | .22μF | 50 | .09 | .059 | .049 | .039 |
| 87222CX | .47μF | 50 | .25 | .22 | .19 | .17 |



Aluminum Radial-Lead Electrolytic Capacitors

General purpose low voltage 85°C (A); HT Type 105°C (B) ±20%

| | | |
|-----------------------------|---|-------------------------------------|
| Operating temperature range | -40°C to +85°C (A); -40°C to +105°C (B) | |
| Leakage Current (20°C) | After 1 min. | 0.03CV or 4μA, whichever is greater |
| | After 2 min. | 0.01CV or 3μA, whichever is greater |



† CROSS REFERENCES: Elna: RC2/RE2; IC: RAR/RSS; Marcon: SEM/SSM; Nichicon: LB/VX/USA/SR/SA; Rubycon: MS7/TWSS; Sprague: 501D/513D; UCC: SME/SRE/SRA/SRG; Panasonic: KA/KS/SU

* Prepackaged: order in increments of 10, 100 or 500

* Prepackaged: order in increments of 10, 100 or 500

| Part No. | Mfr. Cross Ref. No.† | Op. Temp | Value (μF) | Voltage | Size (mm) D x H | Pricing | | | |
|----------|----------------------|----------|------------|---------|-----------------|---------|--------|--------|--------|
| | | | | | | 1 | 10 | 100 | 500 |
| 158481CX | R0.47B100 | B | 0.47 | 100V | 5 x 11 | * | \$0.05 | \$0.04 | \$0.03 |
| 94160CX | 5R1/50 | A | 1 | 50V | 4 x 5 | * | .12 | .08 | .05 |
| 29831CX | R1/50 | A | 1 | 50V | 5 x 11 | * | .057 | .048 | .038 |
| 158490CX | R1B100 | B | 1 | 100V | 5 x 11 | * | .06 | .05 | .04 |
| 93729CX | R2.2/50 | A | 2.2 | 50V | 5 x 11 | * | .038 | .033 | .026 |
| 199021CX | R2.2J/100 | A | 2.2 | 100V | 5 x 11 | * | .035 | .03 | .025 |
| 135183CX | R3.3/50 | A | 3.3 | 50V | 5 x 11 | * | .05 | .04 | .025 |
| 31000CX | R4.7/50 | A | 4.7 | 50V | 5 x 11 | * | .038 | .033 | .026 |
| 198836CX | R10J/16 | A | 10 | 16V | 5 x 11 | * | .045 | .03 | .025 |
| 94211CX | 5R10/25 | A | 10 | 25V | 4 x 5 | * | .13 | .08 | .05 |
| 94220CX | 5R10/35 | A | 10 | 35V | 5 x 5 | * | .09 | .07 | .065 |
| 94369CX | 7R10/35 | A | 10 | 35V | 5 x 7 | * | .11 | .06 | .04 |
| 29891CX | R10/50 | A | 10 | 50V | 5 x 11 | * | .06 | .05 | .04 |
| 199048CX | R10J/100 | A | 10 | 100V | 6 x 11 | * | .05 | .04 | .029 |
| 158529CX | R10B100 | B | 10 | 100V | 6 x 11 | * | .08 | .07 | .055 |
| 158326CX | R22B35 | B | 22 | 35V | 5 x 11 | * | .07 | .05 | .03 |
| 198846CX | R22J/16 | A | 22 | 16V | 5 x 11 | * | .04 | .035 | .026 |
| 189918CX | R22J/25 | A | 22 | 25V | 5 x 11 | * | .045 | .032 | .024 |
| 207870CX | R22B/25 | B | 22 | 25V | 5 x 11 | * | .045 | .036 | .027 |
| 198942CX | R22J/35 | A | 22 | 35V | 5 x 11 | * | .035 | .03 | .025 |
| 93737CX | R22/50 | A | 22 | 50V | 5 x 11 | * | .06 | .05 | .035 |
| 199056CX | R22J/100 | A | 22 | 100V | 6 x 11 | * | .15 | .09 | .06 |
| 198854CX | R33J/16 | A | 33 | 16V | 5 x 11 | * | .04 | .034 | .023 |
| 198926CX | R33J/25 | A | 33 | 25V | 5 x 11 | * | .045 | .035 | .025 |
| 93745CX | R33/50 | A | 33 | 50V | 5 x 11 | * | .055 | .05 | .045 |
| 199064CX | R33J/100 | A | 33 | 100V | 8 x 11 | * | .108 | .09 | .081 |
| 135301CX | R47/10 | A | 47 | 10V | 5 x 12 | * | .04 | .03 | .025 |
| 198862CX | R47J/16 | A | 47 | 16V | 5 x 11 | * | .04 | .032 | .023 |
| 93753CX | R47/25 | A | 47 | 25V | 5 x 11 | * | .048 | .033 | .026 |
| 198951CX | R47J/35 | A | 47 | 35V | 5 x 11 | * | .05 | .04 | .03 |
| 199072CX | R47J/100 | A | 47 | 100V | 10 x 12 | * | .15 | .13 | .10 |
| 158246CX | R47B25 | B | 47 | 25V | 5 x 11 | * | .06 | .04 | .035 |
| 31114CX | R47/50 | A | 47 | 50V | 6 x 11 | * | .06 | .05 | .045 |
| 207811CX | R100/10 | A | 100 | 10V | 5 x 11 | * | .08 | .06 | .05 |
| 94289CX | 5R100/16 | A | 100 | 16V | 6 x 5 | * | .15 | .12 | .09 |
| 94431CX | 7R100/16 | A | 100 | 16V | 6 x 7 | * | .09 | .075 | .055 |
| 93761CX | R100/25 | A | 100 | 25V | 6 x 11 | * | .07 | .05 | .035 |
| 198969CX | R100J/35 | A | 100 | 35V | 6 x 11 | * | .07 | .06 | .05 |
| 29962CX | R100/50 | A | 100 | 50V | 8 x 11 | * | .07 | .06 | .05 |
| 158393CX | R100B50 | B | 100 | 50V | 8 x 11 | * | .09 | .07 | .055 |
| 207845CX | R180/16 | B | 180 | 16V | 6 x 15 | * | .088 | .075 | .056 |

| Part No. | Mfr. Cross Ref. No.† | Op. Temp | Value (μF) | Voltage | Size (mm) D x H | Pricing | | | |
|----------|----------------------|----------|------------|---------|-----------------|---------|--------|--------|---------|
| | | | | | | 1 | 10 | 100 | 500 |
| 135124CX | 7R220/10 | A | 220 | 10V | 6 x 11 | \$0.26 | \$0.20 | \$0.15 | \$0.105 |
| 198871CX | R220J/16 | A | 220 | 16V | 6 x 11 | * | .11 | .07 | .06 |
| 30496CX | R220/25 | A | 220 | 25V | 8 x 11 | * | .08 | .06 | .05 |
| 158262CX | R220B25 | B | 220 | 25V | 8 x 11 | * | .12 | .09 | .07 |
| 93770CX | R220/35 | A | 220 | 35V | 10 x 12 | * | .09 | .08 | .07 |
| 93778CX | R220/50 | A | 220 | 50V | 10 x 12 | * | .15 | .12 | .09 |
| 158406CX | R220B50 | B | 220 | 50V | 10 x 12 | * | .20 | .13 | .11 |
| 199081CX | R220J/100 | A | 220 | 100V | 12 x 25 | .75 | .55 | .49 | .39 |
| 198889CX | R330J/16 | A | 330 | 16V | 8 x 11 | * | .14 | .07 | .06 |
| 93796CX | R330/25 | A | 330 | 25V | 10 x 12 | * | .13 | .09 | .08 |
| 198977CX | R330J/35 | A | 330 | 35V | 10 x 12 | .45 | .29 | .22 | .16 |
| 199099CX | R330J/100 | A | 330 | 100V | 12 x 25 | 1.15 | 1.03 | .81 | .62 |
| 93809CX | R470/16 | A | 470 | 16V | 8 x 11 | * | .11 | .095 | .076 |
| 158203CX | R470B16 | B | 470 | 16V | 8 x 11 | * | .12 | .10 | .09 |
| 31181CX | R470/25 | A | 470 | 25V | 10 x 12 | * | .12 | .10 | .09 |
| 158289CX | R470B25 | B | 470 | 25V | 10 x 12 | * | .15 | .12 | .10 |
| 93817CX | R470/35 | A | 470 | 35V | 10 x 16 | * | .17 | .15 | .13 |
| 93825CX | R470/50 | A | 470 | 50V | 12 x 20 | .29 | .27 | .19 | .13 |
| 158465CX | R470B63 | B | 470 | 63V | 12 x 20 | .30 | .27 | .22 | .17 |
| 199101CX | R470J/100 | A | 470 | 100V | 16 x 25 | 1.15 | .78 | .69 | .58 |
| 30015CX | R1000/16 | A | 1000 | 16V | 10 x 16 | * | .16 | .14 | .12 |
| 93833CX | R1000/25 | A | 1000 | 25V | 10 x 20 | * | .25 | .23 | .18 |
| 158297CX | R1000B25 | B | 1000 | 25V | 10 x 20 | .35 | .29 | .25 | .19 |
| 286045CX | Q399L | A | 1000 | 35V | 12 x 20 | 1.09 | .99 | .91 | .86 |
| 158377CX | R1000B35 | B | 1000 | 35V | 12 x 20 | .49 | .45 | .40 | .35 |
| 93841CX | R1000/50 | A | 1000 | 50V | 12 x 25 | .52 | .46 | .41 | .34 |
| 199110CX | R1000J/100 | A | 1000 | 100V | 18 x 40 | 3.19 | 2.49 | 1.88 | 1.41 |
| 133145CX | R2200/16 | A | 2200 | 16V | 12 x 20 | .32 | .28 | .24 | .22 |
| 30533CX | R2200/25 | A | 2200 | 25V | 12 x 25 | .55 | .49 | .40 | .30 |
| 198985CX | R2200J/35 | A | 2200 | 35V | 16 x 25 | 1.39 | 1.25 | .99 | .74 |
| 158431CX | R2200B50 | B | 2200 | 50V | 16 x 35 | .99 | .89 | .70 | .61 |
| 198987CX | R3300J/16 | A | 3300 | 16V | 12 x 25 | .49 | .39 | .33 | .29 |
| 30891CX | R3300/25 | A | 3300 | 25V | 16 x 25 | .71 | .65 | .49 | .43 |
| 198993CX | R3300J/35 | A | 3300 | 35V | 16 x 35 | .99 | .89 | .71 | .53 |
| 199013CX | R3300J/50 | A | 3300 | 50V | 18 x 35 | 2.15 | 1.95 | 1.71 | 1.46 |
| 198900CX | R4700J/16 | A | 4700 | 16V | 16 x 25 | .79 | .69 | .51 | .45 |
| 93850CX | R4700/25 | A | 4700 | 25V | 16 x 31 | .99 | .85 | .70 | .55 |
| 199005CX | R4700J/35 | A | 4700 | 35V | 18 x 35 | 1.35 | 1.25 | 1.15 | 1.05 |
| 163301CX | R4700/50 | A | 4700 | 50V | 22 x 42 | 1.99 | 1.79 | 1.50 | 1.31 |
| 31510CX | R6800/16 | A | 6800 | 16V | 16 x 35 | .99 | .78 | .68 | .59 |
| 198934CX | R6800J/25 | A | 6800 | 25V | 18 x 35 | 2.55 | 1.96 | 1.49 | 1.15 |

Snap Mount Large Can Aluminum Electrolytic Capacitors (±20%)

- Designed as input filter for switched mode power supply; standard 10mm (.400") snap-in spacing
- Operating temperature range: -40°C to +85°C max. leakage current: 0.02CV (uA) or 3mA whichever is smaller
- Can-Top safety vent

Quantity
SAVE

Snap-Ins!

† CROSS REFERENCES: Aero M: LP/LPR; Elna: LP3/LP4; Illinois Capacitor: LBA/LPR; Mallory: LPX; Marcon: CEAWF;

Nichicon: LLK/LLQ; Panasonic: TS-UP/TS-U; Phillips (MEPCO): 3487/3489; Rubycon: RSP; Sprague: 80D/82D; United Chemicon: SMG(VN)/SMH(VN)

SALE



115422CX

| Part No. | Mfr. Cross Ref. No.† | Capacitance | Voltage | Size (mm)* D x H | Pricing | | |
|----------|----------------------|-------------|---------|------------------|---------|--------|--------|
| | | | | | 1 | 10 | 100 |
| 203211CX | SN220/400/2 | 220μF | 400V | 22 x 51 | \$4.45 | \$3.75 | \$2.65 |
| 203220CX | SN220/400/3 | 220μF | 400V | 30 x 30 | 4.99 | 3.99 | 2.99 |
| 203238CX | SN270/350 | 270μF | 350V | 25 x 40 | 4.99 | 3.99 | 2.55 |
| 203246CX | SN330/400 | 330μF | 400V | 30 x 46 | 4.99 | 4.24 | 3.18 |
| 115377CX | SN470/200 | 470μF | 200V | 30 x 41 | 2.49 | 2.25 | 1.99 |
| 203254CX | SN470/400/4 | 470μF | 400V | 35 x 41 | 6.99 | 5.69 | 4.45 |
| 203262CX | SN470/400/5 | 470μF | 450V | 35 x 51 | 8.25 | 7.60 | 5.69 |

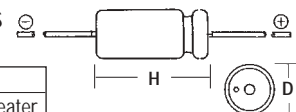
*Capacitor dimensions and styles may vary

| Part No. | Mfr. Cross Ref. No.† | Capacitance | Voltage | Size (mm)* D x H | Pricing | | |
|----------|----------------------|-------------|---------|------------------|---------|--------|--------|
| | | | | | 1 | 10 | 100 |
| 155889CX | SN560/200 | 560μF | 200V | 23 x 41 | \$3.20 | \$2.69 | \$1.90 |
| 203271CX | SN680/200/2 | 680μF | 200V | 35 x 25 | 2.75 | 2.34 | 1.75 |
| 203289CX | SN680/200/3 | 680μF | 200V | 30 x 31 | 2.35 | 2.19 | 1.99 |
| 203297CX | SN820/200/4 | 820μF | 200V | 30 x 41 | 3.99 | 3.35 | 2.39 |
| 115422CX | SN4700/50 | 4,700μF | 50V | 30 x 41 | 3.19 | 2.69 | 1.99 |
| 115431CX | SN6800/50 | 6,800μF | 50V | 30 x 51 | 3.15 | 2.68 | 2.01 |
| 157737CX | SN10000/50 | 10,000μF | 50V | 35 x 40 | 4.95 | 4.10 | 3.99 |

Aluminum Axial-Lead Electrolytic Capacitors

General purpose low voltage 85°C maximum

| | |
|--|-------------------------------------|
| Operating temperature range | -40°C to +85°C |
| Leakage Current (After 2 minutes 20°C) | 0.02CV or 2μA, whichever is greater |



Quantity
SAVE

† CROSS REFERENCES: Elna: RE2; IC: RAR; Marcon: SEM; Nichicon: LB/VX; Rubycon: TWSS; Sprague: 501D/513D; UCC: SME; Panasonic: SU

* Prepackaged: order in increments of 10, 100 or 500

| Part No. | Mfr. Cross Ref. No.† | Value (μF) | Voltage | Size (mm)* DxH | Pricing | | | |
|----------|----------------------|------------|---------|-------------------|---------|-------|--------|-------|
| | | | | | 1 | 10 | 100 | 500 |
| 10866CX | A1/50 | 1 | 50V | 5 x 13 | * | \$.15 | \$.115 | \$.09 |
| 199128CX | A2.2J/16 | 2.2 | 16V | 6 x 13 | * | .17 | .15 | .13 |
| 93569CX | A2.2/50 | 2.2 | 50V | 6 x 13 | * | .11 | .10 | .09 |
| 199136CX | A3.3J/16 | 3.3 | 16V | 6 x 12 | * | .074 | .066 | .061 |
| 199419CX | A3.3J/50 | 3.3 | 50V | 6 x 12 | * | .19 | .12 | .09 |
| 11076CX | A4.7/50 | 4.7 | 50V | 6 x 13 | * | .18 | .13 | .11 |
| 199427CX | A6.8J/50 | 6.8 | 50V | 6 x 12 | * | .19 | .12 | .09 |
| 199144CX | A10J/16 | 10 | 16V | 6 x 12 | * | .20 | .14 | .10 |
| 199259CX | A10J/25 | 10 | 25V | 5 x 12 | * | .15 | .10 | .085 |
| 93577CX | A10/35 | 10 | 35V | 6 x 13 | * | .12 | .096 | .072 |
| 10882CX | A10/50 | 10 | 50V | 6 x 12 | * | .15 | .12 | .08 |
| 199152CX | A22J/16 | 22 | 16V | 6 x 12 | * | .17 | .15 | .11 |
| 199267CX | A22J/25 | 22 | 25V | 6 x 12 | * | .20 | .14 | .10 |
| 10997CX | A22/50 | 22 | 50V | 6 x 12 | * | .19 | .14 | .10 |
| 199161CX | A33J/16 | 33 | 16V | 6 x 13 | * | .13 | .10 | .078 |
| 199275CX | A33J/25 | 33 | 25V | 6.3 x 12 | * | .18 | .12 | .09 |
| 199347CX | A33J/35 | 33 | 35V | 6.3 x 16 | * | .19 | .13 | .09 |
| 199435CX | A33J/50 | 33 | 50V | 6.3 x 16 | * | .18 | .12 | .09 |
| 199179CX | A47J/16 | 47 | 16V | 6.3 x 12 | * | .14 | .10 | .085 |
| 135319CX | A47/25 | 47 | 25V | 8 x 16 | * | .15 | .14 | .09 |
| 199355CX | A47J/35 | 47 | 35V | 6.3 x 16 | * | .20 | .14 | .10 |
| 11105CX | A47/50 | 47 | 50V | 8 x 16 | * | .19 | .14 | .10 |
| 199443CX | A68J/50 | 68 | 50V | 8 x 15 | .25 | .21 | .17 | .12 |
| 199187CX | A100J/16 | 100 | 16V | 6.3 x 16 | .21 | .18 | .14 | .115 |
| 199283CX | A100J/25 | 100 | 25V | 8 x 16 | .25 | .20 | .18 | .15 |
| 93551CX | A100/35 | 100 | 35V | 8 x 16 | * | .21 | .17 | .13 |
| 10911CX | A100/50 | 100 | 50V | 8 x 20 | * | .22 | .18 | .14 |
| 199195CX | A220J16 | 220 | 16V | 8 x 16 | * | .17 | .13 | .11 |
| 199291CX | A220J/25 | 220 | 25V | 8 x 16 | .25 | .21 | .18 | .12 |
| 199363CX | A220J/35 | 220 | 35V | 10 x 17 | .31 | .25 | .23 | .18 |

* Capacitor dimensions and styles may vary

| Part No. | Mfr. Cross Ref. No.† | Value (μF) | Voltage | Size (mm)* DxH | Pricing | | | |
|----------|----------------------|------------|---------|-------------------|---------|-------|-------|-------|
| | | | | | 1 | 10 | 100 | 500 |
| 11017CX | A220/50 | 220 | 50V | 10 x 20 | \$.35 | \$.29 | \$.25 | \$.19 |
| 199208CX | A330J/16 | 330 | 16V | 8 x 16 | .25 | .19 | .18 | .14 |
| 199304CX | A330J/25 | 330 | 25V | 10 x 17 | .29 | .23 | .21 | .15 |
| 199371CX | A330J/35 | 330 | 35V | 10 x 17 | .35 | .32 | .25 | .19 |
| 199451CX | A330J/50 | 330 | 50V | 13 x 22 | .44 | .38 | .35 | .31 |
| 199216CX | A470J/16 | 470 | 16V | 8 x 16 | .25 | .23 | .18 | .16 |
| 199312CX | A470J/25 | 470 | 25V | 10 x 17 | .35 | .30 | .26 | .21 |
| 199380CX | A470J/35 | 470 | 35V | 10 x 21 | .46 | .37 | .34 | .27 |
| 11121CX | A470/50 | 470 | 50V | 13 x 31 | .59 | .49 | .42 | .34 |
| 199460CX | A680J/50 | 680 | 50V | 16 x 25 | .79 | .68 | .53 | .44 |
| 93631CX | A1000/16 | 1000 | 16V | 13 x 27 | .46 | .41 | .38 | .36 |
| 10954CX | A1000/25 | 1000 | 25V | 13 x 31 | .59 | .49 | .44 | .34 |
| 93649CX | A1000/35 | 1000 | 35V | 13 x 26 | .85 | .75 | .59 | .49 |
| 147256CX | A1000/50 | 1000 | 50V | 16 x 31 | .79 | .69 | .59 | .49 |
| 213356CX | A1000/50-1 | 1000 | 50V | 22 x 41 | .69 | .59 | .55 | .49 |
| 11033CX | A2200/16 | 2200 | 16V | 16 x 40 | .79 | .71 | .65 | .59 |
| 199321CX | A2200J/25 | 2200 | 25V | 16 x 28 | .99 | .83 | .72 | .55 |
| 93657CX | A2200/35 | 2200 | 35V | 16 x 30 | 1.25 | 1.10 | .99 | .85 |
| 199478CX | A2200J/50 | 2200 | 50V | 18 x 42 | 2.29 | 1.93 | 1.79 | 1.65 |
| 199224CX | A3300J/16 | 3300 | 16V | 16 x 26 | .79 | .71 | .57 | .43 |
| 93665CX | A3300/25 | 3300 | 25V | 16 x 32 | .99 | .89 | .79 | .69 |
| 199398CX | A3300J/35 | 3300 | 35V | 18 x 37 | 3.15 | 2.84 | 2.27 | 1.70 |
| 199486CX | A3300J/50 | 3300 | 50V | 22 x 43 | 3.95 | 3.15 | 2.35 | 2.05 |
| 199232CX | A4700J/16 | 4700 | 16V | 16 x 30 | 1.55 | 1.37 | 1.09 | .95 |
| 93673CX | A4700/25 | 4700 | 25V | 22 x 39 | 1.69 | 1.49 | 1.29 | .99 |
| 199401CX | A4700J/35 | 4700 | 35V | 18 x 40 | 2.50 | 2.13 | 1.75 | 1.55 |
| 158810CX | A4700A50 | 4700 | 50V | 25 x 43 | 2.79 | 2.29 | 2.09 | 1.79 |
| 199241CX | A6800J/16 | 6800 | 16V | 16 x 33 | 1.99 | 1.35 | 1.12 | .88 |
| 199339CX | A6800J/25 | 6800 | 25V | 18 x 40 | 1.59 | 1.45 | 1.35 | 1.19 |
| 93681CX | A10000/16 | 10000 | 16V | 22 x 51 | 2.25 | 2.05 | 1.65 | 1.19 |

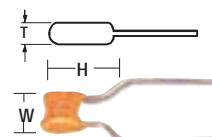
Monolithic Ceramic Capacitors (±20%) (Z5U Series)

Applications:

- Data processing
- Communications engineering

Operating temperature range:

-10°C to +85°C



* Prepackaged: order in increments of 10, 100 or 1000

Ceramic Disc Capacitors (±20%)

25, 50 and 1000 Volt,
Z5U Temperature Coefficient

| | |
|---------------------------------|--|
| Operating temperature range | +10°C to +85°C |
| Cap. change over temp. range | +22% to -56% |
| Dielectric withstanding voltage | 2.5 times rated volt. for not < 1 sec. |

Prepackaged: order in increments of 10, 100 or 1000

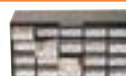


| Part No. | Mfr. Cross Ref. No. | Capacitance | Voltage | Dia. * (mm) | Pricing | | | |
|----------|---------------------|-------------|---------|----------------|---------|--------|--------|--------|
| | | | | | 10 | 100 | 1000 | 5000 |
| 135141CX | DC2.2 | 2.2pF | 50V | 5 | \$.05 | \$.035 | \$.019 | \$.015 |
| 15333CX | DC10 | 10pF | 50V | 5 | .07 | .05 | .02 | .015 |
| 15405CX | DC22 | 22pF | 50V | 6 | .07 | .05 | .025 | .02 |
| 15510CX | DC47 | 47pF | 50V | 5 | .05 | .035 | .02 | .015 |
| 15341CX | DC100 | 100pF | 50V | 5 | .05 | .035 | .025 | .02 |
| 15413CX | DC220 | 220pF | 50V | 5 | .05 | .035 | .025 | .015 |
| 15448CX | DC330 | 330pF | 50V | 4.6 | .05 | .05 | .05 | .05 |
| 15528CX | DC470 | 470pF | 50V | 5 | .08 | .065 | .025 | .022 |
| 207853CX | DC820/1000 | 820pF | 1000V | 14 | .07 | .059 | .48 | .36 |
| 15190CX | DC.001 | .001μF | 50V | 6 | .06 | .05 | .025 | .022 |
| 97341CX | DC.0022/1K20 | .0022μF | 1000V | 11 | .22 | .18 | .16 | .11 |
| 15211CX | DC.0047 | .0047μF | 50V | 6 | .05 | .035 | .03 | .02 |
| 15229CX | DC.01 | .01μF | 50V | 6 | .06 | .04 | .03 | .02 |
| 97375CX | DC.01/1K20 | .01μF | 1000V | 12 | .18 | .12 | .084 | .066 |
| 15245CX | DC.022 | .022μF | 50V | 8 | .07 | .05 | .04 | .03 |
| 15253CX | DC.047 | .047μF | 50V | 8 | .084 | .069 | .057 | .04 |
| 151116CX | DC.1/25 | .1μF | 25V | 6 | .14 | .13 | .08 | .07 |
| 15270CX | DC.1 | .1μF | 50V | 8 | .15 | .13 | .115 | .095 |

* Capacitor dimensions and styles may vary

| Part No. | Mfr. Cross Ref. No. | Capacitance | Volt. | Size (mm)* W x T x H | Pricing | | | | |
|----------|---------------------|-------------|-------|-------------------------|---------|-------|--------|--------|-------|
| | | | | | 1 | 10 | 100 | 1000 | 5000 |
| 81541CX | MD10 | 10pF | 50V | 3.5 x 2.0 x 3.0 | * | \$.10 | \$.065 | \$.045 | \$.03 |
| 81533CX | MD22 | 22pF | 50V | 4.0 x 2.0 x 4.0 | * | .095 | .073 | .045 | .04 |
| 81525CX | MD100 | 100pF | 50V | 3.5 x 2.0 x 3.0 | * | .09 | .07 | .045 | .035 |
| 81517CX | MD.001 | .001μF | 50V | 4.5 x 2.0 x 3.0 | * | .09 | .07 | .05 | .035 |
| 138181CX | MD.0022 | .0022μF | 50V | 4.0 x 2.0 x 5.5 | * | .07 | .06 | .05 | .04 |
| 138202CX | MD.0047 | .0047μF | 50V | 5.0 x 2.0 x 5.5 | * | .07 | .056 | .049 | .044 |
| 25507CX | MD.01 | .01μF | 50V | 3.5 x 2.0 x 3.0 | * | .09 | .06 | .04 | .035 |
| 57621CX | MD.047 | .047μF | 50V | 2.5 x 2.5 x 3.0 | * | .08 | .07 | .05 | .03 |
| 25523CX | MD.1 | .1μF | 50V | 6.0 x 2.0 x 4.0 | * | .07 | .06 | .04 | .035 |
| 25540CX | MD.22 | .22μF | 50V | 6.0 x 2.0 x 4.5 | * | .17 | .12 | .08 | .06 |
| 138237CX | MD.33 | .33μF | 50V | 6.0 x 2.0 x 8.0 | * | .16 | .14 | .11 | .07 |
| 25558CX | MD.47 | .47μF | 50V | 4.5 x 2.5 x 4.5 | * | .25 | .19 | .13 | .12 |
| 81509CX | MD1 | 1μF | 50V | 6.0 x 3.0 x 7.0 | .48 | .43 | .32 | .23 | .21 |

* Capacitor dimensions and style may vary



See page 226 for Monolithic Ceramic Capacitor Cabinet Kit.

Mylar Capacitors (±10%) Metalized Polyester Film Capacitors

- High performance at low cost • Non-inductive construction

| | |
|-----------------------------|----------------------------------|
| Operating temperature range | -40°C to +85°C |
| Dissipation factor | ≤.01 (at 1kHz) |
| Dielectric strength | 150% of rated voltage for 5 sec. |



†Cross References:

Panasonic: ECO-E Series; Sprague: DF/450P/451P/453P; Westlake: 160/168/185/167/184/186; Rubycon: MC/MN; Mepco: 713A1/719A1/C280; TRW: X601PE/X601CPE; Packtron: MF/RB; Secor: MMKS/MMKR/MMDR; RIFA: PHE353/PHE354; Roederstein: MKT 1818/MKT 1822; WIMA: MKS; CSF Thompson: MD/ MC; Siemens: B325X-XX; NIC: NEM/NRM; Nichicon: DDXM; Phillips: 712 A1 series

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Mfr. Cross Ref. No.† | Capacitance | Volt. (V) | Size (mm)* L x T x H | Pricing | | | |
|----------|----------------------|-------------|-----------|-------------------------|---------|--------|--------|--------|
| | | | | | 1 | 10 | 100 | 1000 |
| 26833CX | MY.001 | .001µF | 100 | 7.0 x 3.0 x 7.0 | * | \$.10 | \$.07 | \$.05 |
| 207802CX | MY.0015/1000 | .0015µF | 1000 | 23.5 x 5.1 x 10.7 | * | .11 | .06 | .05 |
| 26868CX | MY.0022 | .0022µF | 100 | 6.0 x 3.0 x 10.0 | * | .09 | .06 | .04 |
| 26876CX | MY.0047 | .0047µF | 100 | 6.0 x 3.0 x 9.0 | * | .14 | .13 | .11 |
| 207829CX | MY.0068/220 | .0068µF | 220 | 18.0 x 5.5 x 10.0 | * | .12 | .07 | .05 |
| 26884CX | MY.01 | .01µF | 100 | 6.0 x 3.0 x 7.0 | * | .10 | .06 | .04 |
| 207837CX | MY.018/50 | .018µF | 50 | 6.1 x 2.6 x 11.3 | * | .16 | .136 | .102 |
| 26905CX | MY.022 | .022µF | 100 | 6.0 x 3.0 x 10.0 | * | .15 | .10 | .06 |
| 26921CX | MY.033 | .033µF | 100 | 8.0 x 4.0 x 11.0 | * | .15 | .10 | .06 |
| 207861CX | MY.033/400 | .033µF | 400 | 11.0 x 4.0 x 8.0 | * | .10 | .06 | .04 |
| 26930CX | MY.047 | .047µF | 100 | 8.0 x 4.0 x 12.0 | * | .15 | .10 | .06 |
| 135562CX | MY.1/50 | .1µF†† | 50 | 14.0 x 6.0 x 12.0 | * | .11 | .062 | .056 |
| 26956CX | MY.1 | .1µF | 100 | 12.5 x 5.0 x 9.5 | * | .17 | .12 | .07 |
| 93921CX | MY.1/250 | .1µF | 250 | 12.5 x 5.5 x 10 | * | .19 | .16 | .13 |
| 26972CX | MY.22 | .22µF | 100 | 12.5 x 5.5 x 10 | * | .19 | .12 | .085 |
| 93964CX | MY.33/250 | .33µF | 250 | 18.0 x 7.0 x 12.5 | .32 | .25 | .21 | .19 |
| 26999CX | MY.47 | .47µF | 100 | 18.0 x 6.0 x 11.5 | .39 | .29 | .20 | .17 |
| 27001CX | MY1 | 1µF | 100 | 18.0 x 7.5 x 14.0 | .49 | .39 | .33 | .29 |
| 93981CX | MY1/250 | 1µF | 250 | 26.0 x 9.0 x 16.0 | .50 | .45 | .36 | .27 |
| 93999CX | MY2.2/250 | 2.2µF | 250 | 26.0 x 9.0 x 16.0 | .89 | .69 | .59 | .45 |

†† ±20% tolerance * Capacitor dimensions and styles may vary

Dipped Tantalum Capacitors (±10%) Resin Dipped Solid Tantalum Capacitors

- Flame retardant coating • Exceptional temperature stability
- Low leakage current • Moisture-resistant
- Designed for entertainment and commercial equipment

| | |
|-----------------------|---------------------------------------|
| Operating temp. range | -55°C to +85°C (+125°C with derating) |
| Rated voltage DC | ≤ +85°C |



†Cross References:

Panasonic: EF Series; AVX: Tap Series; Sprague: 196D and 199D; Matsuo: 202; Kemet: T350/ T360; Mepco: 49GS; NEC: DN; Nichicon: 599; NIC: NDTM; Hitachi: TSD-3

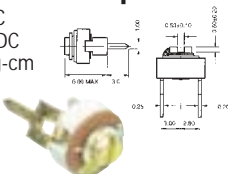
* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Mfr. Cross Ref. No.† | Capacitance | Voltage (V) | Size (mm)* D x H | Pricing | | | |
|----------|----------------------|-------------|-------------|---------------------|---------|-------|-------|-------|
| | | | | | 1 | 10 | 100 | 1000 |
| 33486CX | TM.1 | .1µF | 35 | 4.5 x 7.0 | * | \$.25 | \$.19 | \$.15 |
| 33507CX | TM.22 | .22µF | 35 | 4.5 x 7.0 | * | .25 | .19 | .15 |
| 33523CX | TM.33 | .33µF | 35 | 4.5 x 7.0 | * | .25 | .19 | .15 |
| 33531CX | TM.47 | .47µF | 35 | 4.5 x 7.0 | * | .20 | .15 | .14 |
| 61102CX | TM.68 | .68µF | 35 | 2.9 x 5.1 | * | .25 | .19 | .17 |
| 154860CX | TM1/25 | 1µF | 25 | 3.0 x 6.0 | .32 | .29 | .25 | .22 |
| 33662CX | TM1 | 1µF | 35 | 4.5 x 7.0 | .32 | .29 | .25 | .22 |
| 94001CX | TM2.2/16 | 2.2µF | 16 | 4.5 x 7.0 | * | .19 | .16 | .12 |
| 94019CX | TM2.2/25 | 2.2µF | 25 | 4.5 x 7.0 | .38 | .35 | .29 | .25 |
| 33734CX | TM2.2 | 2.2µF | 35 | 4.5 x 7.5 | .39 | .35 | .29 | .22 |
| 33769CX | TM3.3 | 3.3µF | 35 | 4.5 x 7.5 | .55 | .36 | .33 | .31 |
| 94035CX | TM4.7/16 | 4.7µF | 16 | 4.5 x 7.5 | .47 | .38 | .28 | .20 |
| 94043CX | TM4.7/25 | 4.7µF | 25 | 5.0 x 8.5 | .49 | .44 | .33 | .20 |
| 33806CX | TM4.7 | 4.7µF | 35 | 5.5 x 9.0 | .45 | .42 | .37 | .27 |
| 33873CX | TM6.8 | 6.8µF | 35 | 6.0 x 10.0 | .59 | .45 | .36 | .32 |
| 94060CX | TM10/16 | 10µF | 16 | 5.0 x 9.0 | .45 | .39 | .29 | .25 |
| 94078CX | TM10/25 | 10µF | 25 | 5.5 x 9.0 | .59 | .50 | .40 | .36 |
| 33689CX | TM10 | 10µF | 35 | 6.0 x 10.0 | .89 | .79 | .69 | .59 |
| 33718CX | TM15 | 15µF | 25 | 6.0 x 10.0 | .89 | .80 | .65 | .49 |
| 33751CX | TM22 | 22µF | 6.3 | 5.0 x 9.0 | .45 | .37 | .26 | .22 |
| 94094CX | TM22/16 | 22µF | 16 | 6.0 x 10.0 | .69 | .59 | .49 | .45 |
| 94107CX | TM22/25 | 22µF | 25 | 7.0 x 10.5 | 1.79 | 1.59 | .99 | .85 |
| 33785CX | TM33 | 33µF | 25 | 8.0 x 13.0 | 2.31 | 2.09 | 1.62 | 1.05 |
| 94123CX | TM47/16 | 47µF | 16 | 8.0 x 13.0 | 1.69 | 1.55 | 1.35 | .95 |
| 33822CX | TM47 | 47µF | 25 | 9.0 x 14.5 | 3.39 | 3.05 | 2.35 | 1.85 |
| 33700CX | TM100 | 100µF | 6.3 | 7.0 x 10.5 | 1.19 | 1.09 | .95 | .85 |

* Capacitor dimensions and styles may vary

5mm Ceramic Trimmer Capacitor

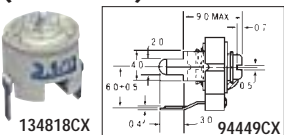
- Working voltage: 200VDC
- Withstand voltage: 400VDC
- Turning torque: 35-200 g-cm
- Operating temperature range: -30°C~+85°C
- Insulation resistance: >10MΩ min. @ 250VDC



| Part No. | Capacitance Range (pF) | Q Factor @ 1MHz | Color Codes | Pricing | | | |
|----------|------------------------|-----------------|-------------|---------|-------|-------|-------|
| | | | | 1 | 10 | 100 | 1000 |
| 136979CX | 9.0-50.0 | > 200 | Green | \$.89 | \$.79 | \$.69 | \$.59 |

8mm .315" Ceramic Trimmer Capacitors (250WVDC) Thru Hole

- Working voltage: 250VDC
- Withstand voltage: 550VDC
- Turning torque: 40-200 g-cm
- Operating temperature range: -55°C~+85°C
- Insulation resistance: 10MΩ min. @ 250VDC



| Part No. | Capacitance Range (pF) | Q Factor @ 1MHz | Color Codes | Pricing | | | |
|----------|------------------------|-----------------|-------------|---------|-------|-------|-------|
| | | | | 1 | 10 | 100 | 1000 |
| 134818CX | 3.5-13.0 | > 300 | Ivory | \$.69 | \$.65 | \$.50 | \$.39 |
| 32838CX | 4.0-34.0 | > 300 | Yellow | .90 | .77 | .62 | .59 |
| 32854CX | 6.0-70.0 | > 200 | Yellow | .92 | .78 | .72 | .68 |
| 94449CX | 8.5-100 | > 200 | Purple | 1.05 | .93 | .81 | .77 |
| 94465CX | 8.5-120 | > 200 | Nil | .99 | .79 | .65 | .59 |

Memory Back-Up Capacitors

Applications:

- Back-up on CMOS microcomputers, static RAM, DTSs (digital tuning systems)
- Memory back-up of remote controllers

Features:

- Excellent voltage holding characteristics for low back-up currents
- Small size vs. capacitance • Voltage: 5.5VDC
- Capacitance ranges from .047 to 1F

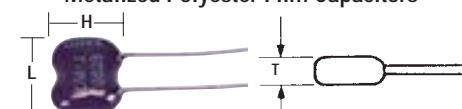
Capacitor dimensions and lead spacing may vary

| Part No. | Mfr. Cross Ref. No. | Capacitance (Farad) | Pricing | | |
|----------|---------------------|---------------------|---------|--------|--------|
| | | | 1 | 10 | 100 |
| 142922CX | MBC.047/5.5 | .047 | \$1.50 | \$1.34 | \$.99 |
| 142949CX | MBC.22/5.5 | .22 | 2.09 | 1.79 | 1.41 |
| 143010CX | MBC.47/5.5 | .47 | 3.49 | 3.15 | 2.59 |
| 142957CX | MBC1.0/5.5 | 1.0 | 4.75 | 4.29 | 3.49 |
| 227811CX | S5R5V105 | 1.0 | 4.99 | 3.99 | 3.29 |



Dipped Silver Mica Capacitors (±5%)

Metalized Polyester Film Capacitors



| | |
|-----------------------------|-----------------|
| Case type | DM15 |
| Lead space (in.) | .23 |
| Tolerance | ±5% |
| Operating temperature range | -55°C to +125°C |
| Size (mm) - L x T x H* | 11 x 4 x 9 |

* Capacitor dimensions and style may vary

| Part No. | Mfr. Cross Ref. No. | Capacitance | Voltage (V) | Pricing | | | |
|----------|---------------------|-------------|-------------|---------|-------|-------|-------|
| | | | | 1 | 10 | 100 | 1000 |
| 15991CX | DM100 | 10pF | 500 | \$.49 | \$.38 | \$.31 | \$.30 |
| 16037CX | DM220 | 22pF | 500 | .49 | .39 | .29 | .23 |
| 16070CX | DM330 | 33pF | 500 | .49 | .38 | .31 | .29 |
| 16096CX | DM470 | 47pF | 500 | .49 | .39 | .29 | .25 |
| 16002CX | DM101 | 100pF | 500 | .49 | .39 | .31 | .27 |
| 16088CX | DM331 | 330pF | 500 | .89 | .73 | .55 | .45 |
| 16109CX | DM471 | 470pF | 500 | 1.05 | .95 | .79 | .65 |
| 16011CX | DM102 | 1000pF | 100 | 1.19 | .99 | .89 | .79 |



See page 44 for
Surface Mount
Capacitors



1/4-Watt Carbon Film Resistors (±5%)



Single Resistor Value Pricing: 1/4-Watt Carbon Film Resistors (±5%)

To order: Use 5-digit part number adjacent to ohms in chart below
Values may not be combined for quantity price breaks

| Pricing (Sold in bags of 100 pieces) | | | | |
|---|------------|------------|------------|------------|
| Specify Part No. & Resistor Value (see Standard Resistor Values Chart below) | 1 Bag | 10 Bags | 50 Bags | 100 Bags |
| | \$.99/bag | \$.57/bag | \$.49/bag | \$.46/bag |

99¢/bag
100 piece bags

Assortment Pricing: 1/4-Watt Carbon Film Resistor (±5%)

Assortments may not be combined for quantity price breaks

| Part No. | Description (Including bulk pack values) | 1 | 10 | 25 |
|----------|---|--------|--------|--------|
| 10719CX | 5 ea. 70 values (every other value from 10Ω - 5.6 MΩ) (350 pcs.) | \$9.95 | \$8.95 | \$7.95 |
| 103167CX | 10 ea. 24 values marked (●) and 50 ea. 6 values marked (X) (540 pcs.) | 12.95 | 11.49 | 9.95 |
| 10663CX | 100 ea. 27 values marked (▲) (2,700 pcs.) | 24.95 | 22.49 | 20.49 |
| 10655CX | 100 ea. 160 values (all resistor values in the chart below) (16,000 pcs.) | 119.95 | 107.95 | 96.95 |
| 81836CX | 1/4-watt resistor component cabinet kit – 30 values (540 pcs.), pg 227 | 27.95 | 24.95 | 22.49 |

Standard Resistor Values Chart

X▲● see above

| Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | Part No. | Ohms | |
|----------|------|----------|---------|----------|---------|----------|---------|----------|------|----------|---------|----------|---------|----------|------|------|
| 30293CX | 2.2 | 59192CX | 15 | 29946CX | ▲x | 100 | 31499CX | ▲● | 680 | 31026CX | ▲x | 4.7k | 30841CX | ▲● | 33k | |
| 30349CX | 2.4 | 30197CX | 16 | 30040CX | | 110 | 31561CX | | 750 | 31237CX | ▲● | 5.1k | 30912CX | | 36k | |
| 30373CX | 2.7 | 30234CX | 18 | 30082CX | | 120 | 31624CX | | 820 | 31270CX | ▲● | 5.6k | 30955CX | | 39k | |
| 30621CX | 3.0 | 30411CX | 20 | 30120CX | | 130 | 31691CX | | 910 | 31405CX | | 6.2k | 30808CX | | 43k | |
| 30656CX | 3.3 | 65736CX | 22 | 30162CX | ▲● | 150 | 29663CX | ▲x | 1.0k | 31430CX | | 6.8k | 31149CX | ▲● | 47k | |
| 30699CX | 3.6 | 30541CX | 24 | 59248CX | | 160 | 29719CX | | 1.1k | 31536CX | | 7.5k | 31309CX | | 51k | |
| 30728CX | 3.9 | 30584CX | 27 | 59281CX | | 180 | 29735CX | ● | 1.2k | 31595CX | | 8.2k | 31350CX | | 56k | |
| 30980CX | 4.3 | 30752CX | 30 | 59424CX | | 200 | 58931CX | | 1.3k | 60353CX | | 9.1k | 31456CX | | 62k | |
| 59811CX | 4.7 | 30824CX | 33 | 30470CX | ▲x | 220 | 29760CX | ▲● | 1.5k | 29911CX | ▲x | 10k | 31481CX | | 68k | |
| 31211CX | 5.1 | 30904CX | 36 | 30568CX | | 240 | 29786CX | | 1.6k | 30031CX | | 11k | 31552CX | | 75k | |
| 31253CX | 5.6 | 59723CX | 39 | 30605CX | ▲● | 270 | 29807CX | | 1.8k | 30074CX | | 12k | 31616CX | | 82k | |
| 31392CX | 6.2 | 31069CX | 43 | 30795CX | | 300 | 30277CX | ▲● | 2.0k | 30111CX | | 13k | 31683CX | | 91k | |
| 31421CX | 6.8 | 31106CX | ▲● | 47 | 30867CX | ▲● | 330 | 30314CX | ▲● | 2.2k | 30146CX | ▲● | 15k | 29997CX | ▲x | 100k |
| 31528CX | 7.5 | 31296CX | 51 | 30921CX | | 360 | 30357CX | | 2.4k | 30200CX | | 16k | 30058CX | | 110k | |
| 31587CX | 8.2 | 31341CX | 56 | 30963CX | ● | 390 | 30390CX | ▲● | 2.7k | 30242CX | | 18k | 30091CX | | 120k | |
| 31641CX | 9.1 | 60089CX | 62 | 31085CX | | 430 | 30630CX | | 3.0k | 30429CX | ● | 20k | 30138CX | | 130k | |
| 29882CX | ▲● | 10 | 60134CX | 68 | 31165CX | ▲● | 470 | 30672CX | ▲● | 3.3k | 30453CX | ▲● | 22k | 30171CX | | 150k |
| 59061CX | 11 | 60222CX | 75 | 31317CX | | 510 | 30701CX | | 3.6k | 30550CX | | 24k | 30226CX | | 160k | |
| 30066CX | 12 | 60302CX | 82 | 31376CX | | 560 | 30736CX | | 3.9k | 30592CX | | 27k | 30269CX | | 180k | |
| 30103CX | 13 | 31675CX | 91 | 31464CX | | 620 | 59782CX | | 4.3k | 30779CX | | 30k | 30437CX | | 200k | |
| | | | | | | | | | | | | | 29751CX | | 1.3M | |
| | | | | | | | | | | | | | 29938CX | ▲● | 10M | |

1/8-Watt Carbon Resistor (±5%) Assortments

Any 1/8 or 1/2-Watt Resistor value (below) can be special ordered – 1000 pc minimum
• 1/8-W – \$12.95/k (bulk) • 1/2-W – \$15.95/k (bulk)

| Part No. | Cross Ref. No. | Values included | Description (see chart below) | Pricing | |
|----------|----------------|-----------------|---|---------|---------|
| | | | | 1 | 10 |
| 108305CX | ASST1830 | X | 10 ea. of 24 values marked by X and 50 ea. of 6 values marked below by # (540 pcs.) | \$12.95 | \$11.49 |
| 108290CX | ASST1827 | ✓ | 100 ea. of 27 values marked by ✓ (2,700 pcs.) | 29.95 | 26.95 |
| 108333CX | CAB182R | – | 1/8-watt resistor component cabinet kit – 30 values (540 pcs.), see page 227 | 24.95 | 22.49 |

1/8 & 1/2-Watt Resistor Assortments Value Chart (Ohms)

| | | | | | | | | | |
|--------|--------|--------|---------|---------|---------|---------|--------|---------|---------|
| 10 ✓X | 150 ✓X | 330 ✓X | 680 ✓X | 2.0k ✓X | 3.3k ✓X | 5.6k ✓X | 15k ✓X | 33k ✓X | 470k ✓X |
| 47 ✓X | 220 ✓# | 390 X | 1.0k ✓# | 2.2k ✓X | 4.7k ✓# | 6.8k X | 22k ✓X | 47k ✓X | 1.0M ✓X |
| 100 ✓# | 270 ✓X | 470 ✓X | 1.5k ✓X | 2.7k ✓X | 5.1k ✓X | 10k ✓# | 27k X | 100k ✓# | 10M ✓X |

(✓), (X), (#) symbols indicate Resistor values included in Assortments above and below.

1/2-Watt Carbon Film Resistor (±5%) Assortments

Any 1/8 or 1/2-Watt Resistor value (above) can be special ordered – 1000 pc minimum
• 1/8-W – \$12.95/k (bulk) • 1/2-W – \$15.95/k (bulk)

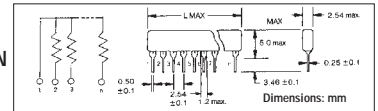
| Part No. | Cross Ref. No. | Values Included | Description (see chart above) | Pricing | |
|----------|----------------|-----------------|--|---------|---------|
| | | | | 1 | 10 |
| 107854CX | ASST1230 | X | 10 ea. of 24 values marked by X and 50 ea. of 6 values marked by # (540 pcs.) | \$14.95 | \$13.49 |
| 107844CX | ASST1227 | ✓ | 100 ea. of 27 values marked by ✓ (2,700 pcs.) | 34.95 | 31.49 |
| 107836CX | ASST1270 | – | 5 ea. of 70 values (every other value from 10Ω - 5.6MΩ) (350 pcs.) (see chart above) | 10.95 | 9.95 |
| 107883CX | CAB12R | – | 1/2-watt resistor component cabinet kit – 30 values (540 pcs.), see page 227 | 29.95 | 26.95 |

Single-In-Line "SIP" Resistor Networks (±2%)

8 and 10-Pin Bussed (125mW/Resistor) ±2%

Features (8BRN/10BRN):

- 8-pin package (7 resistors) = 8BRN
- 10-pin package (9 resistors) = 10BRN
- Rated power per resistor at 70°C: 125mW/resistor
- Operating temperature range: -55°C to +125°C
- Resistance temperature coefficient: 200ppm/°C
- Max. working voltage: 100V or rated power x resistance, whichever is smaller
- Insulation resistance: 10,000MΩ min. at 100V
- Solderability: per MIL-R-83401
- Low profile 5mm (.200" body ht.)
- Low profile is compatible w/ DIPs
- Cermet thick film construction



| Part No. | Pins | Ohms |
|----------|------|------|
| 97826CX | 8 | 10k |
| 97851CX | 10 | 330 |
| 97869CX | 10 | 470 |
| 97877CX | 10 | 1.0k |
| 97893CX | 10 | 2.2k |
| 24660CX | 10 | 4.7k |
| 24643CX | 10 | 10k |
| 98087CX | 10 | 47k |
| 98095CX | 10 | 100k |

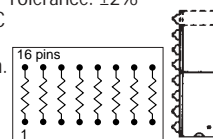
| Pricing per each | | | |
|-----------------------|--------|--------|--------|
| 1 | 10 | 100 | 1000 |
| \$.25 | \$.19 | \$.15 | \$.12 |
| Pricing for P/N 97826 | | | |
| \$.24 | \$.18 | \$.14 | \$.11 |

Dual-In-Line "DIP" Resistor Networks (±2%)

16-Pin Isolated (140mW/Resistor) ±2%

Features (16IRN):

- Maximum operating voltage: 100V • Tolerance: ±2%
- Temperature coefficient: ±100ppm/°C
- Operating temp.: -55°C to +125°C
- Insulation resistance: 10,000MΩ min.
- Lead solderability/solvent resistance: meets requirements of MIL-R-83401
- Power rating at 70°C: 2.25 watts
- Compatible with automatic insertion equipment
- Copper leads for excellent heat dissipation



| Pricing per each | | | |
|------------------|--------|--------|--------|
| 1 | 10 | 100 | 1000 |
| \$.39 | \$.35 | \$.31 | \$.29 |

| Part No. | Ohms |
|----------|------|
| 164005CX | 33 |
| 108556CX | 100 |
| 108564CX | 220 |
| 108572CX | 330 |
| 108581CX | 470 |
| 108599CX | 1.0k |
| 108610CX | 4.7k |
| 108628CX | 10k |
| 108644CX | 100k |

SIP and DIP Resistor Network Cross Reference Chart

| Jameco | CTS | A – B | Bourns | Dale | Beckman | Sprague | MEPCO |
|----------|--------------|---------|--------------|-------------|------------|---------------|---------------|
| 8BRN... | 770-81-R... | 708A... | 4608X-101... | CSC08A01... | L08-1-R... | 356CF... X2PD | 9S08... GL002 |
| 10BRN... | 770-101-R... | 710A... | 4610X-101... | CSC10A01... | L10-1-R... | 256CX... X2PD | 9S10... GL002 |
| 16IRN... | 761-3-R... | 316B... | 4116R-001... | MDP16-03... | 898-3-R... | 916C... X5SR | D16H... 12-J |



6, 8, and 10-Pin Bussed Single-In-Line "SIP" Resistor Networks (±2%)

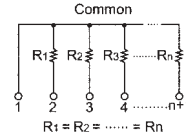
6-Pin Resistor Network

| Part No. | Mfr. Cross Ref. | OHMs |
|----------|-----------------|------|
| 267098CX | 4606X-101-100 | 10 |
| 267670CX | 4606X-101-220 | 22 |
| 267688CX | 4606X-101-270 | 27 |
| 267696CX | 4606X-101-330 | 33 |
| 267709CX | 4606X-101-390 | 39 |
| 267717CX | 4606X-101-470 | 47 |
| 267725CX | 4606X-101-510 | 51 |
| 267733CX | 4606X-101-560 | 56 |
| 267741CX | 4606X-101-680 | 68 |
| 267750CX | 4606X-101-820 | 82 |
| 267768CX | 4606X-101-101 | 100 |
| 267776CX | 4606X-101-121 | 120 |
| 267784CX | 4606X-101-151 | 150 |
| 267792CX | 4606X-101-181 | 180 |
| 267805CX | 4606X-101-221 | 220 |
| 267813CX | 4606X-101-271 | 270 |
| 267821CX | 4606X-101-331 | 330 |
| 267830CX | 4606X-101-391 | 390 |
| 267848CX | 4606X-101-471 | 470 |
| 267856CX | 4606X-101-511 | 510 |
| 267864CX | 4606X-101-561 | 560 |

| Part No. | Mfr. Cross Ref. | OHMs |
|----------|-----------------|------|
| 267872CX | 4606X-101-681 | 680 |
| 267881CX | 4606X-101-821 | 820 |
| 267899CX | 4606X-101-102 | 1.0k |
| 267901CX | 4606X-101-122 | 1.2k |
| 267910CX | 4606X-101-152 | 1.5k |
| 267928CX | 4606X-101-182 | 1.8k |
| 267936CX | 4606X-101-202 | 2.0k |
| 267944CX | 4606X-101-222 | 2.2k |
| 267952CX | 4606X-101-272 | 2.7k |
| 267961CX | 4606X-101-332 | 3.3k |
| 267979CX | 4606X-101-392 | 3.9k |
| 267987CX | 4606X-101-472 | 4.7k |
| 267995CX | 4606X-101-512 | 5.1k |
| 268007CX | 4606X-101-562 | 5.6k |
| 268015CX | 4606X-101-682 | 6.8k |
| 268023CX | 4606X-101-822 | 8.2k |
| 268031CX | 4606X-101-103 | 10k |
| 268040CX | 4606X-101-123 | 12k |
| 268058CX | 4606X-101-153 | 15k |
| 268066CX | 4606X-101-183 | 18k |
| 268074CX | 4606X-101-203 | 20k |

4606X Series Value Equivalents

| Part No. | Mfr. Cross Ref. | OHMs |
|----------|-----------------|------|
| 268082CX | 4606X-101-223 | 22k |
| 268091CX | 4606X-101-273 | 27k |
| 268103CX | 4606X-101-333 | 33k |
| 268111CX | 4606X-101-393 | 39k |
| 268120CX | 4606X-101-473 | 47k |
| 268138CX | 4606X-101-563 | 56k |
| 268146CX | 4606X-101-683 | 68k |
| 268154CX | 4606X-101-823 | 82k |
| 268162CX | 4606X-101-104 | 100k |
| 268171CX | 4606X-101-124 | 120k |
| 268189CX | 4606X-101-154 | 150k |
| 268197CX | 4606X-101-184 | 180k |
| 268200CX | 4606X-101-224 | 220k |
| 268218CX | 4606X-101-274 | 270k |
| 268226CX | 4606X-101-334 | 330k |
| 268234CX | 4606X-101-394 | 390k |
| 268242CX | 4606X-101-474 | 470k |
| 268251CX | 4606X-101-564 | 560k |
| 268269CX | 4606X-101-684 | 680k |
| 268277CX | 4606X-101-824 | 820k |
| 268285CX | 4606X-101-105 | 1.0M |



- Miniature, high density packaging
- Operating temperature range: -55°C to +125°C
- Temperature coefficient range: ±100ppm: 50Ω – 1.0MΩ; ±250ppm: <50Ω or >1.0M
- Rating ambient temperature: +70°C
- Wattage/element: 1/8 Watt
- Max. working voltage: 100V
- Prepackaged: order in increments of 10, 100, 500 or 1000

6-Pin Resistor Network Pricing

| Qty. | 10 | 100 | 500 | 1000 |
|-------|--------|---------|---------|---------|
| Price | \$.14 | \$.085 | \$.076 | \$.071 |

8-Pin Resistor Network Pricing

| Qty. | 10 | 100 | 500 | 1000 |
|-------|--------|---------|---------|---------|
| Price | \$.19 | \$.122 | \$.114 | \$.105 |

10-Pin Resistor Network Pricing

| Qty. | 10 | 100 | 500 | 1000 |
|-------|--------|--------|--------|--------|
| Price | \$.23 | \$.16 | \$.14 | \$.13 |

8-Pin Resistor Network

| Part No. | Mfr. Cross Ref. | OHMs |
|----------|-----------------|------|
| 267354CX | 4608X-101-100 | 10 |
| 275864CX | 4608X-101-220 | 22 |
| 275872CX | 4608X-101-270 | 27 |
| 275881CX | 4608X-101-330 | 33 |
| 275899CX | 4608X-101-390 | 39 |
| 275901CX | 4608X-101-470 | 47 |
| 275910CX | 4608X-101-510 | 51 |
| 275928CX | 4608X-101-560 | 56 |
| 275936CX | 4608X-101-680 | 68 |
| 275944CX | 4608X-101-820 | 82 |
| 275952CX | 4608X-101-101 | 100 |
| 275961CX | 4608X-101-121 | 120 |
| 275979CX | 4608X-101-151 | 150 |
| 275987CX | 4608X-101-181 | 180 |
| 275995CX | 4608X-101-221 | 220 |
| 276007CX | 4608X-101-271 | 270 |
| 276015CX | 4608X-101-331 | 330 |
| 276023CX | 4608X-101-391 | 390 |
| 276031CX | 4608X-101-471 | 470 |
| 276040CX | 4608X-101-511 | 510 |
| 276058CX | 4608X-101-561 | 560 |

| Part No. | Mfr. Cross Ref. | OHMs |
|----------|-----------------|------|
| 276066CX | 4608X-101-681 | 680 |
| 276074CX | 4608X-101-821 | 820 |
| 276082CX | 4608X-101-102 | 1.0k |
| 276091CX | 4608X-101-122 | 1.2k |
| 276103CX | 4608X-101-152 | 1.5k |
| 276111CX | 4608X-101-182 | 1.8k |
| 276120CX | 4608X-101-202 | 2.0k |
| 276138CX | 4608X-101-222 | 2.2k |
| 276146CX | 4608X-101-272 | 2.7k |
| 276154CX | 4608X-101-332 | 3.3k |
| 276162CX | 4608X-101-392 | 3.9k |
| 276171CX | 4608X-101-472 | 4.7k |
| 276189CX | 4608X-101-512 | 5.1k |
| 276197CX | 4608X-101-562 | 5.6k |
| 276200CX | 4608X-101-682 | 6.8k |
| 276218CX | 4608X-101-822 | 8.2k |
| 276226CX | 4608X-101-103 | 10k |
| 276234CX | 4608X-101-123 | 12k |
| 276242CX | 4608X-101-153 | 15k |
| 276251CX | 4608X-101-183 | 18k |
| 276269CX | 4608X-101-203 | 20k |

4608X Series Value Equivalents

| Part No. | Mfr. Cross Ref. | OHMs |
|----------|-----------------|------|
| 276277CX | 4608X-101-223 | 22k |
| 276285CX | 4608X-101-273 | 27k |
| 276293CX | 4608X-101-333 | 33k |
| 276306CX | 4608X-101-393 | 39k |
| 276314CX | 4608X-101-473 | 47k |
| 276322CX | 4608X-101-563 | 56k |
| 276331CX | 4608X-101-683 | 68k |
| 276349CX | 4608X-101-823 | 82k |
| 276357CX | 4608X-101-104 | 100k |
| 276365CX | 4608X-101-124 | 120k |
| 276373CX | 4608X-101-154 | 150k |
| 276381CX | 4608X-101-184 | 180k |
| 276390CX | 4608X-101-224 | 220k |
| 276402CX | 4608X-101-274 | 270k |
| 276411CX | 4608X-101-334 | 330k |
| 276429CX | 4608X-101-394 | 390k |
| 276437CX | 4608X-101-474 | 470k |
| 276445CX | 4608X-101-564 | 560k |
| 276453CX | 4608X-101-684 | 680k |
| 276461CX | 4608X-101-824 | 820k |
| 276470CX | 4608X-101-105 | 1.0M |

10-Pin Resistor Network

| Part No. | Mfr. Cross Ref. | OHMs |
|----------|-----------------|------|
| 267418CX | 4610X-101-100 | 10 |
| 280583CX | 4610X-101-220 | 22 |
| 280591CX | 4610X-101-270 | 27 |
| 280604CX | 4610X-101-330 | 33 |
| 280612CX | 4610X-101-390 | 39 |
| 280621CX | 4610X-101-470 | 47 |
| 280639CX | 4610X-101-510 | 51 |
| 280647CX | 4610X-101-560 | 56 |
| 280655CX | 4610X-101-680 | 68 |
| 280663CX | 4610X-101-820 | 82 |
| 280671CX | 4610X-101-101 | 100 |
| 280680CX | 4610X-101-121 | 120 |
| 280698CX | 4610X-101-151 | 150 |
| 280701CX | 4610X-101-181 | 180 |
| 280719CX | 4610X-101-221 | 220 |
| 280727CX | 4610X-101-271 | 270 |
| 280735CX | 4610X-101-331 | 330 |
| 280743CX | 4610X-101-391 | 390 |
| 280751CX | 4610X-101-471 | 470 |
| 280760CX | 4610X-101-511 | 510 |
| 280778CX | 4610X-101-561 | 560 |

| Part No. | Mfr. Cross Ref. | OHMs |
|----------|-----------------|------|
| 280786CX | 4610X-101-681 | 680 |
| 280794CX | 4610X-101-821 | 820 |
| 280807CX | 4610X-101-102 | 1.0k |
| 280815CX | 4610X-101-122 | 1.2k |
| 280823CX | 4610X-101-152 | 1.5k |
| 280831CX | 4610X-101-182 | 1.8k |
| 280840CX | 4610X-101-202 | 2.0k |
| 280858CX | 4610X-101-222 | 2.2k |
| 280866CX | 4610X-101-272 | 2.7k |
| 280874CX | 4610X-101-332 | 3.3k |
| 280882CX | 4610X-101-392 | 3.9k |
| 280891CX | 4610X-101-472 | 4.7k |
| 280903CX | 4610X-101-512 | 5.1k |
| 280911CX | 4610X-101-562 | 5.6k |
| 280920CX | 4610X-101-682 | 6.8k |
| 280938CX | 4610X-101-822 | 8.2k |
| 280946CX | 4610X-101-103 | 10k |
| 280954CX | 4610X-101-123 | 12k |
| 280962CX | 4610X-101-153 | 15k |
| 280971CX | 4610X-101-183 | 18k |
| 280989CX | 4610X-101-203 | 20k |

4610X Series Value Equivalents

| Part No. | Mfr. Cross Ref. | OHMs |
|----------|-----------------|------|
| 280997CX | 4610X-101-223 | 22k |
| 281009CX | 4610X-101-273 | 27k |
| 281017CX | 4610X-101-333 | 33k |
| 281025CX | 4610X-101-393 | 39k |
| 281033CX | 4610X-101-473 | 47k |
| 281041CX | 4610X-101-563 | 56k |
| 281050CX | 4610X-101-683 | 68k |
| 281068CX | 4610X-101-823 | 82k |
| 281076CX | 4610X-101-104 | 100k |
| 281084CX | 4610X-101-124 | 120k |
| 281092CX | 4610X-101-154 | 150k |
| 281105CX | 4610X-101-184 | 180k |
| 281113CX | 4610X-101-224 | 220k |
| 281121CX | 4610X-101-274 | 270k |
| 281130CX | 4610X-101-334 | 330k |
| 281148CX | 4610X-101-394 | 390k |
| 281156CX | 4610X-101-474 | 470k |
| 281164CX | 4610X-101-564 | 560k |
| 281172CX | 4610X-101-684 | 680k |
| 281181CX | 4610X-101-824 | 820k |
| 281199CX | 4610X-101-105 | 1.0M |

0805 Resistor Assortment (±5%)

144 Values, 50 pcs. each; 7,200 Pieces Total



Resistance Value Chart:

| | | | | | | | | |
|-----|----|-----|------|------|-----|------|------|------|
| 1.2 | 10 | 75 | 430 | 2.0k | 10k | 51k | 270k | 2.2M |
| 1.6 | 16 | 85 | 470 | 2.2k | 11k | 56k | 300k | 2.4M |
| 2.2 | 18 | 91 | 510 | 2.4k | 12k | 62k | 360k | 2.7M |
| 2.4 | 20 | 110 | 560 | 2.7k | 13k | 68k | 390k | 3.0M |
| 2.7 | 22 | 120 | 620 | 3.0k | 15k | 75k | 430k | 3.3M |
| 3.0 | 24 | 130 | 680 | 3.3k | 16k | 82k | 470k | 3.6M |
| 3.3 | 27 | 150 | 750 | 3.6k | 18k | 91k | 510k | 3.9M |
| 3.6 | 30 | 160 | 820 | 3.9k | 20k | 100k | 560k | 4.3M |
| 4.0 | 33 | 180 | 910 | 4.3k | 22k | 110k | 620k | 4.7M |
| 4.3 | 36 | 200 | 1.0k | 4.7k | 24k | 120k | 750k | 5.1M |
| 4.7 | 43 | 220 | 1.1k | 5.6k | 27k | 150k | 820k | 5.6M |
| 5.1 | 47 | 240 | 1.2k | 6.2k | 30k | 160k | 910k | 6.8M |
| 5.6 | 51 | 270 | 1.3k | 6.8k | 33k | 180k | 1.0M | 7.5M |
| 6.2 | 56 | 300 | 1.5k | 7.5k | 36k | 200k | 1.6M | 8.2M |
| 6.8 | 62 | 360 | 1.6k | 8.2k | 39k | 220k | 1.8M | 9.1M |
| 7.5 | 68 | 390 | 1.8k | 9.1k | 43k | 240k | 2.0M | 10M |

- Size (mm): 2.0L x 1.25W x 0.5Thick
- Max. overload voltage: 200V
- 1/8 watts
- Operating temperature: -50°C to 120°C
- Case size (two cases): 10.5"L x 6.7"W x 1.7"T
- Weight: 1.9 lbs.

Includes: Case with labels

| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 25 |
|----------|---------------------|---------|---------|---------|
| 172806CX | 16-500 | \$79.95 | \$71.95 | \$64.79 |

1206 Resistor Assortment (±1%)

56 Values, 200 pcs. each; 11,200 pcs. Total



Value Chart (Ohms)

| | | | |
|------|-------|-------|-------|
| 10 | 200 | 3.92k | 75k |
| 12.1 | 243 | 4.99k | 90.9k |
| 15 | 301 | 6.19k | 100k |
| 20 | 392 | 7.5k | 121k |
| 24.3 | 499 | 9.09k | 150k |
| 30.1 | 619 | 10k | 200k |
| 39.2 | 750 | 12.1k | 243k |
| 49.9 | 909 | 15k | 301k |
| 61.9 | 1k | 20k | 392k |
| 75 | 1.21k | 24.3k | 499k |
| 90.9 | 1.5k | 30.1k | 619k |
| 100 | 2k | 39.2k | 750k |
| 121 | 2.43k | 49.9k | 909k |
| 150 | 3.01k | 61.9k | 1M |

Potentiometers – Linear and Audio Taper

Color Code Legend
New Sale Qty. Save



1/2-Watt 24mm Linear Taper (±20%)

- Maximum voltage: 500V
- Rotational angle: 300° (±5°)
- Withstanding voltage for 1 minute: 500VAC



255476CX



264372CX



255610CX

0.335" L shaft; solder lugs

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------|--------|-------|-------|-------|
| 255476CX | RV24A-10-15R1-B500 | 500 | \$1.18 | \$.91 | \$.83 | \$.76 |
| 255484CX | RV24A-10-15R1-B1K | 1k | 1.18 | .91 | .83 | .76 |
| 255492CX | RV24A-10-15R1-B2K | 2k | 1.18 | .91 | .83 | .76 |
| 255505CX | RV21A-10-15R1-B2.5K | 2.5k | 1.18 | .91 | .83 | .76 |
| 255513CX | RV24A-10-15R1-B5K | 5k | 1.18 | .91 | .83 | .76 |
| 255521CX | RV24A-10-15R1-B10K | 10k | 1.18 | .91 | .83 | .76 |
| 255530CX | RV24A-10-15R1-B25K | 25k | 1.18 | .91 | .83 | .76 |
| 255548CX | RV24A-10-15R1-B50K | 50k | 1.18 | .91 | .83 | .76 |
| 255556CX | RV24A-10-15R1-B100K | 100k | 1.18 | .91 | .83 | .76 |
| 255564CX | RV24A-10-15R1-B250K | 250k | 1.18 | .91 | .83 | .76 |
| 255572CX | RV24A-10-15R1-B500K | 500k | 1.18 | .91 | .83 | .76 |
| 255581CX | RV24A-10-15R1-B1M | 1M | 1.18 | .91 | .83 | .76 |
| 255599CX | RV24A-10-15R1-B2M | 2M | 1.18 | .91 | .83 | .76 |
| 255601CX | RV24A-10-15R1-B5M | 5M | 1.18 | .91 | .83 | .76 |

0.531" L knurled shaft; solder lugs

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|--------------------|------|--------|-------|-------|-------|
| 264372CX | RV24A-10-20K-B500 | 500 | \$1.18 | \$.91 | \$.83 | \$.76 |
| 264381CX | RV24A-10-20K-B1K | 1k | 1.18 | .91 | .83 | .76 |
| 264399CX | RV24A-10-20K-B2K | 2k | 1.18 | .91 | .83 | .76 |
| 264401CX | RV24A-10-20K-B5K | 5k | 1.18 | .91 | .83 | .76 |
| 264410CX | RV24A-10-20K-B10K | 10k | 1.18 | .91 | .83 | .76 |
| 264428CX | RV24A-10-20K-B50K | 50k | 1.18 | .91 | .83 | .76 |
| 264436CX | RV24A-10-20K-B100K | 100k | 1.18 | .91 | .83 | .76 |
| 264444CX | RV24A-10-20K-B250K | 250k | 1.18 | .91 | .83 | .76 |
| 264452CX | RV24A-10-20K-B500K | 500k | 1.18 | .91 | .83 | .76 |
| 264461CX | RV24A-10-20K-B1M | 1M | 1.18 | .91 | .83 | .76 |
| 264479CX | RV24A-10-20K-B2M | 2M | 1.18 | .91 | .83 | .76 |

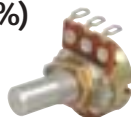
1.32" L shaft; solder pins

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------|--------|-------|-------|-------|
| 255610CX | RV24A-10-40R1-B500 | 500 | \$1.13 | \$.95 | \$.86 | \$.79 |
| 255628CX | RV24A-10-40R1-B1K | 1k | 1.13 | .95 | .86 | .79 |
| 255636CX | RV24A-10-40R1-B2K | 2k | 1.13 | .95 | .86 | .79 |
| 255644CX | RV24A-10-40R1-B2.5K | 2.5k | 1.13 | .95 | .86 | .79 |
| 255652CX | RV24A-10-40R1-B5K | 5k | 1.13 | .95 | .86 | .79 |
| 255661CX | RV24A-10-40R1-B10K | 10k | 1.13 | .95 | .86 | .79 |
| 255679CX | RV24A-10-40R1-B25K | 25k | 1.13 | .95 | .86 | .79 |
| 255687CX | RV24A-10-40R1-B50K | 50k | 1.13 | .95 | .86 | .79 |
| 255695CX | RV24A-10-40R1-B100K | 100k | 1.13 | .95 | .86 | .79 |
| 255708CX | RV24A-10-40R1-B25K | 250k | 1.13 | .95 | .86 | .79 |
| 255716CX | RV24A-10-40R1-B500K | 500k | 1.13 | .95 | .86 | .79 |
| 255724CX | RV24A-10-40R1-B1M | 1M | 1.13 | .95 | .86 | .79 |
| 255732CX | RV24A-10-40R1-B5M | 5M | 1.13 | .95 | .86 | .79 |



1/5-Watt 16mm Linear Taper (±20%)

- Shaft Length: 0.335" L
- Shaft diameter: .250"
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute
- Rotation life: 15,000 cycles
- Rated voltage: 200V
- Total rotation angle: 300° (±5°)
- Center detent



286352CX

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|------------------------|------|--------|--------|--------|-------|
| 286352CX | RV16A-10-15R1-B1K-OC | 1k | \$1.35 | \$1.13 | \$1.04 | \$.94 |
| 286361CX | RV16A-10-15R1-B2K-OC | 2k | 1.35 | 1.13 | 1.04 | .94 |
| 286379CX | RV16A-10-15R1-B5K-OC | 5k | 1.35 | 1.13 | 1.04 | .94 |
| 286387CX | RV16A-10-15R1-B10K-OC | 10k | 1.35 | 1.13 | 1.04 | .94 |
| 286395CX | RV16A-10-15R1-B25K-OC | 25k | 1.35 | 1.13 | 1.04 | .94 |
| 286408CX | RV16A-10-15R1-B50K-OC | 50k | 1.35 | 1.13 | 1.04 | .94 |
| 286416CX | RV16A-10-15R1-B100K-OC | 100k | 1.35 | 1.13 | 1.04 | .94 |
| 286424CX | RV16A-10-15R1-B250K-OC | 250k | 1.35 | 1.13 | 1.04 | .94 |
| 286432CX | RV16A-10-15R1-B500K-OC | 500k | 1.35 | 1.13 | 1.04 | .94 |
| 286441CX | RV16A-10-15R1-B1M-OC | 1M | 1.35 | 1.13 | 1.04 | .94 |



1/2-Watt 24mm Linear Taper with SPST Switch (±20%)

- Shaft length: 0.335"
- Shaft diameter: .250"
- Terminal type: solder lugs
- Maximum voltage: 500V
- Switch rating: 125VAC, 1A
- Rotational angle: 300° (±5°)



263759CX

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|-----------------------|------|--------|--------|--------|--------|
| 263759CX | RV24A01-10-15R1-B500 | 500 | \$1.62 | \$1.36 | \$1.24 | \$1.13 |
| 263767CX | RV24A01-10-15R1-B1K | 1k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263775CX | RV24A01-10-15R1-B2.5K | 2.5k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263783CX | RV24A01-10-15R1-B5K | 5k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263791CX | RV24A01-10-15R1-B10K | 10k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263804CX | RV24A01-10-15R1-B25K | 25k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263812CX | RV24A01-10-15R1-B50K | 50k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263821CX | RV24A01-10-15R1-B100K | 100k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263839CX | RV24A01-10-15R1-B250K | 250k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263847CX | RV24A01-10-15R1-B500K | 500k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263855CX | RV24A01-10-15R1-B1M | 1M | 1.62 | 1.36 | 1.24 | 1.13 |



1/4-Watt 24mm Audio Taper (±20%)

- Shaft length: 0.335"
- Shaft diameter: .250"
- Terminal type: solder lugs
- Insulation resistance: >100MΩ @ 500VDC
- Rotational angle: 300° (±5°)
- Maximum voltage: 250V



255396CX

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------|--------|-------|-------|-------|
| 255396CX | RV24A-10-15R1-A1K | 1k | \$1.18 | \$.90 | \$.83 | \$.76 |
| 255417CX | RV24A-10-15R1-A5K | 5k | 1.18 | .90 | .83 | .76 |
| 255425CX | RV24A-10-15R1-A10K | 10k | 1.18 | .90 | .83 | .76 |
| 255433CX | RV24A-10-15R1-A50K | 50k | 1.18 | .90 | .83 | .76 |
| 255441CX | RV24A-10-15R1-A100K | 100k | 1.18 | .90 | .83 | .76 |
| 255450CX | RV24A-10-15R1-A500K | 500k | 1.18 | .90 | .83 | .76 |
| 255468CX | RV24A-10-15R1-A1M | 1M | 1.18 | .90 | .83 | .76 |



1/4-Watt 24mm Audio Taper with SPST Switch (±20%)

- Shaft length: 0.590"
- Shaft diameter: .250"
- Switch rating: 125VAC, 1A
- Rotational angle: 300° (±5°)
- Voltage rating: 250V



263601CX

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|-----------------------|------|--------|--------|--------|--------|
| 263601CX | RV24A01-10-15R1-A1K | 1k | \$1.62 | \$1.36 | \$1.24 | \$1.13 |
| 263610CX | RV24A01-10-15R1-A5K | 5k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263636CX | RV24A01-10-15R1-A10K | 10k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263644CX | RV24A01-10-15R1-A50K | 50k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263652CX | RV24A01-10-15R1-A100K | 100k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263661CX | RV24A01-10-15R1-A500K | 500k | 1.62 | 1.36 | 1.24 | 1.13 |
| 263679CX | RV24A01-10-15R1-A1M | 1M | 1.62 | 1.36 | 1.24 | 1.13 |



1/5-Watt 16mm Linear Taper (±20%)

- Shaft Length: 0.335"
- Shaft diameter: .250"
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC, 1 minute
- 11-detent position
- Rated voltage: 200V
- Rotational angle: 300° (±5°)



286459CX

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|------------------------|------|--------|--------|--------|--------|
| 286459CX | RV16A-10-15R1-B1K-OD | 1k | \$1.65 | \$1.38 | \$1.25 | \$1.13 |
| 286467CX | RV16A-10-15R1-B2K-OD | 2k | 1.65 | 1.38 | 1.25 | 1.13 |
| 286475CX | RV16A-10-15R1-B5K-OD | 5k | 1.65 | 1.38 | 1.25 | 1.13 |
| 286483CX | RV16A-10-15R1-B10K-OD | 10k | 1.65 | 1.38 | 1.25 | 1.13 |
| 286491CX | RV16A-10-15R1-B25K-OD | 25k | 1.65 | 1.38 | 1.25 | 1.13 |
| 286504CX | RV16A-10-15R1-B50K-OD | 50k | 1.65 | 1.38 | 1.25 | 1.13 |
| 286512CX | RV16A-10-15R1-B100K-OD | 100k | 1.65 | 1.38 | 1.25 | 1.13 |
| 286521CX | RV16A-10-15R1-B250K-OD | 250k | 1.65 | 1.38 | 1.25 | 1.13 |
| 286539CX | RV16A-10-15R1-B500K-OD | 500k | 1.65 | 1.38 | 1.25 | 1.13 |
| 286547CX | RV16A-10-15R1-B1M-OD | 1M | 1.65 | 1.38 | 1.25 | 1.13 |



1/5-Watt 16mm Linear Taper with DPDT Switch (±20%)

- Shaft length: 0.335"
- Shaft diameter: .250"
- Terminal type: solder lugs
- Switch rating: 0.3A; 30VDC
- Rotation angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Switch life: 10,000 times
- Insulation resistance: >100MΩ @ 500VDC
- Dielectric strength: 500VAC for 1 minute



286678CX

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------------|--------|--------|--------|--------|
| 286660CX | RV16B-10-15R1-B1K | 1k | \$3.55 | \$2.96 | \$2.70 | \$2.45 |
| 286678CX | RV16B-10-15R1-B5K | 5k | 3.55 | 2.96 | 2.70 | 2.45 |
| 286686CX | RV16B-10-15R1-B10K | 10k | 3.55 | 2.96 | 2.70 | 2.45 |
| 286694CX | RV16B-10-15R1-B50K | 50k | 3.55 | 2.96 | 2.70 | 2.45 |
| 286707CX | RV16B-10-15R1-B100K | 100k | 3.55 | 2.96 | 2.70 | 2.45 |



1/8-Watt 16mm Linear Taper

- Shaft length: 0.531"
- Shaft diameter: .250"
- Rotational angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Rotational noise: 47mV
- Insulation resistance: >100MΩ @ 500VDC
- Tolerance: <1MΩ (±20%); ≥1MΩ (±30%)
- Dielectric strength: 500VAC for 1 minute



286061CX

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------------|--------|--------|-------|-------|
| 286061CX | RV16A-10-20R1-B1K | 1k | \$1.19 | \$1.00 | \$.83 | \$.70 |
| 286184CX | RV16A-10-20R1-B2K | 2k | 1.19 | 1.00 | .83 | .70 |
| 286192CX | RV16A-10-20R1-B5K | 5k | 1.19 | 1.00 | .83 | .70 |
| 286205CX | RV16A-10-20R1-B10K | 10k | 1.19 | 1.00 | .83 | .70 |
| 286213CX | RV16A-10-20R1-B50K | 50k | 1.19 | 1.00 | .83 | .70 |
| 286854CX | RV16A-10-20R1-B100K | 100k | 1.19 | 1.00 | .83 | .70 |
| 286221CX | RV16A-10-20R1-B500K | 500k | 1.19 | 1.00 | .83 | .70 |
| 286230CX | RV16A-10-20R1-B1M | 1M | 1.19 | 1.00 | .83 | .70 |



1/5-Watt 16mm Linear Taper with DPDT Switch (±20%)

- Shaft length: 0.335"
- Shaft diameter: .250"
- Terminal type: PC terminals (horizontal)
- Switch rating: 0.3A; 30VDC
- Rotation angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Switch life: 10,000 times
- Insulation resistance: >100MΩ @ 500VDC
- Dielectric strength: 500VAC for 1 minute



286740CX

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------------|--------|--------|--------|--------|
| 286731CX | RV16B-20-15R1-B10K | 10k | \$3.55 | \$2.96 | \$2.70 | \$2.45 |
| 286740CX | RV16B-20-15R1-B50K | 50k | 3.55 | 2.96 | 2.70 | 2.45 |
| 286758CX | RV16B-20-15R1-B100K | 100k | 3.55 | 2.96 | 2.70 | 2.45 |



1/8-Watt 16mm Linear Taper with SPST Switch (±20%)

- Shaft Length: 0.335"
- Shaft diameter: .250"
- Terminal type: solder lugs double row
- Rated voltage: 200V
- Total rotation angle: 300° (±5°)
- Rotation life: 15,000 cycles
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute
- Switch contact resistance: 20mΩ
- Switch rating: 12VDC/1A



286598CX

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|-----------------------|------------|--------|--------|--------|--------|
| 286598CX | RV16A03-10-15R1-B1K | 1k | \$1.95 | \$1.62 | \$1.47 | \$1.34 |
| 286601CX | RV16A03-10-15R1-B5K | 5k | 1.95 | 1.62 | 1.47 | 1.34 |
| 286619CX | RV16A03-10-15R1-B10K | 10k | 1.95 | 1.62 | 1.47 | 1.34 |
| 286627CX | RV16A03-10-15R1-B50K | 50k | 1.95 | 1.62 | 1.47 | 1.34 |
| 286635CX | RV16A03-10-15R1-B100K | 100k | 1.95 | 1.62 | 1.47 | 1.34 |
| 286643CX | RV16A03-10-15R1-B500K | 500k | 1.95 | 1.62 | 1.47 | 1.34 |
| 286651CX | RV16A03-10-15R1-B1M | 1M | 1.95 | 1.62 | 1.47 | 1.34 |



1/5-Watt 16mm Linear Taper (±20%)

- Shaft Length: 0.335"
- Shaft diameter: .250"
- Rotation angle: 300° (±5°)
- Rotational life: 15,000 cycles
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute



286256CX

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------------|--------|--------|-------|-------|
| 286248CX | RV16A-10-15R1-B1K | 1k | \$1.15 | \$1.00 | \$.87 | \$.80 |
| 286256CX | RV16A-10-15R1-B2K | 2k | 1.15 | 1.00 | .87 | .80 |
| 286264CX | RV16A-10-15R1-B5K | 5k | 1.15 | 1.00 | .87 | .80 |
| 286272CX | RV16A-10-15R1-B10K | 10k | 1.15 | 1.00 | .87 | .80 |
| 286281CX | RV16A-10-15R1-B25K | 25k | 1.15 | 1.00 | .87 | .80 |
| 286299CX | RV16A-10-15R1-B50K | 50k | 1.15 | 1.00 | .87 | .80 |
| 286301CX | RV16A-10-15R1-B100K | 100k | 1.15 | 1.00 | .87 | .80 |
| 286310CX | RV16A-10-15R1-B250K | 250k | 1.15 | 1.00 | .87 | .80 |
| 286328CX | RV16A-10-15R1-B500K | 500k | 1.15 | 1.00 | .87 | .80 |
| 286336CX | RV16A-10-15R1-B1M | 1M | 1.15 | 1.00 | .87 | .80 |
| 286344CX | RV16A-10-15R1-B1.2M | 1.2M | 1.15 | 1.00 | .87 | .80 |



1/10-Watt 16mm Audio Taper (±20%)

- Shaft length: 0.335"
- Shaft diameter: .250"
- Rotational angle: 300° (±5°)
- Rotational life: 15,000 cycles
- Rotational noise: 47mV
- Insulation resistance: >100MΩ @ 500VDC
- Withstanding voltage: 500VAC for 1 minute
- 11-detent positions



286555CX

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|------------------------|------------|--------|--------|--------|--------|
| 286555CX | RV16A-10-15R1-A10K-OD | 10k | \$1.65 | \$1.38 | \$1.25 | \$1.13 |
| 286563CX | RV16A-10-15R1-A50K-OD | 50k | 1.65 | 1.38 | 1.25 | 1.13 |
| 286571CX | RV16A-10-15R1-A100K-OD | 100k | 1.65 | 1.38 | 1.25 | 1.13 |
| 286580CX | RV16A-10-15R1-A1M-OD | 1M | 1.65 | 1.38 | 1.25 | 1.13 |



1/5-Watt 16mm Linear Taper with SPST Switch (±20%)

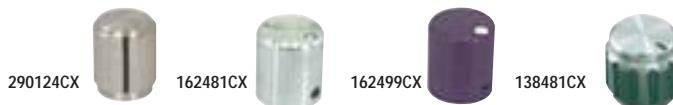
- Shaft Length: 0.374"
- Shaft diameter: .250"
- Terminal type: PC terminal (vertical; back)
- Total rotation angle: 270° (±5°)
- Rotation life: 100,000 cycles
- Switch life: 10,000 times
- Insulation resistance: >100MΩ @ 500VDC
- Switch contact resistance: <100mΩ
- Switch rating: 250VAC 10A



286766CX

| Part No. | Product No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------------|--------|--------|--------|--------|
| 286766CX | RV16C-40-16F1-B5K | 5k | \$2.25 | \$1.90 | \$1.73 | \$1.57 |
| 286774CX | RV16C-40-16F1-B10K | 10k | 2.25 | 1.90 | 1.73 | 1.57 |
| 286782CX | RV16C-40-16F1-B50K | 50k | 2.25 | 1.90 | 1.73 | 1.57 |
| 286791CX | RV16C-40-16F1-B100K | 100k | 2.25 | 1.90 | 1.73 | 1.57 |

Aluminum Instrumentation Knobs (1/8" and 1/4" Shaft Diameters)



| Part No. | Mfr. Cross Ref. No. | Shaft Size | Body Color | Pointer Color | Size (H" x Dia. ") | 1 | 10 | 100 |
|----------|---------------------|------------|------------|---------------|--------------------|--------|--------|--------|
| 290124CX | KD500G | 1/8" | Silver | Silver | .50 x .63 | \$1.99 | \$1.79 | \$1.61 |
| 162481CX | K5-1/4S | 1/4" | Chrome | Silver | .50 x .56 | 1.19 | 1.09 | .96 |
| 162499CX | K5-1/4B | 1/4" | Black | White | .50 x .56 | 1.55 | 1.39 | 1.07 |
| 138481CX | KNO31 | 1/4" | Aluminum | Black | .61 x .65 | 1.49 | 1.35 | 1.19 |

For Complete Specs and additional Knobs see page 111.

5-Watt Linear Taper Wire Wound (±20%)

- Temp. range: -10°C to 70°C
- Shaft diameter: 0.23" (6mm)
- Shaft length: 0.67", except P/N 140521CX (0.25")
- Non-rotational key
- Maximum panel thickness: 0.1"
- Mounting hole: 0.32"



140513CX

Includes: Mounting hardware

| Part No. | Mfr. Cross Ref. | Ohms | 1 | 10 | 50 | 100 |
|----------|-----------------|---------|--------|--------|--------|--------|
| 140513CX | PW5B100 | 100 .. | \$2.79 | \$2.35 | \$2.25 | \$2.10 |
| 140521CX | PW5B500 | 500 ... | 2.79 | 2.35 | 2.25 | 2.10 |

2-Watt Linear Taper (±20%)

- Temp. range: -10°C to +70°C
- Shaft diameter: 0.25"
- Mounting hole: 0.375"
- Non-rotational key
- Length: 0.825"
- Base length: 0.25"

123959CX



Includes: Mounting hardware

| Part No. | Mfr. Cross Ref. | Ohms | 1 | 10 | 100 | 500 |
|----------|-----------------|----------|--------|--------|--------|--------|
| 123959CX | PT1K | 1k ... | \$3.29 | \$2.99 | \$2.65 | \$2.39 |
| 123967CX | PT5K | 5k | 3.29 | 2.99 | 2.65 | 2.39 |

0.2-Watt Linear Taper (±20%)

- Insulation resistance: 100MΩ @ 500VDC
- Number of detents: 10
- Maximum panel thickness: 0.15"
- Shaft length: 0.605"
- Maximum operating voltage: 150VAC
- Shaft diameter: 0.235"
- Rotational life: 15,000 cycles
- Mounting hole: 0.27"



183548CX

Includes: Mounting hardware

| Part No. | Mfr. Cross Ref. | Ohms | 1 | 10 | 100 | 500 |
|----------|-----------------|------|--------|--------|--------|--------|
| 163563CX | PMD401 | 10k | \$1.65 | \$1.49 | \$1.35 | \$1.09 |

2-Watt Linear Taper (10-turn)

- Resistance tolerance: ±10%
- 10-turn; wirewound
- Load life: 1000 hours, 2W
- Insulation resistance: (500VDC) 1000MΩ minimum
- Absolute minimum resistance: 1Ω or 0.1% maximum



| Part No. | Product No. | Ohms | 1 | 10 | 50 |
|----------|-------------|---------|---------|---------|---------|
| 183548CX | 3540S-1-502 | 5k ... | \$12.79 | \$12.35 | \$11.89 |
| 183521CX | 3540S-1-103 | 10k ... | 12.79 | 12.35 | 11.89 |

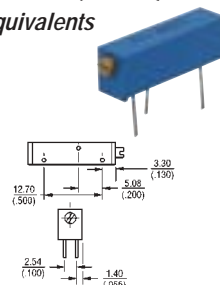
Corporate Customers

Opening an account is easy!! Call 1-800-831-4242 for details today.

3/4-Watt, 3/4" Rectangular, 15-Turn Cermet Potentiometer Side Adjustment (±10%)

3006P Series Value Equivalents

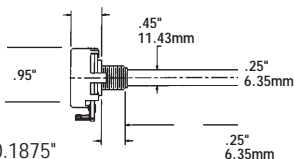
- Low PC board profile
- Temperature range: -55°C to 125°C
- Absolute minimum resistance: 1% or 2Ω
- Contact resistance variation: 1% or 1Ω maximum
- Power rating: 0.75W @ 70°C (400V maximum)



| Part No. | Mfr. Cross Ref. No. | Ohms | 1 | 10 | 50 | 100 |
|----------|---------------------|-----------|--------|--------|--------|--------|
| 241234CX | 3006P-101 | 100 .. | \$1.25 | \$1.15 | \$0.99 | \$0.89 |
| 241242CX | 3006P-201 | 200 | 1.25 | 1.15 | .99 | .89 |
| 241251CX | 3006P-501 | 500 | 1.25 | 1.15 | .99 | .89 |
| 241269CX | 3006P-102 | 1k | 1.25 | 1.15 | .99 | .89 |
| 241277CX | 3006P-202 | 2k | 1.25 | 1.15 | .99 | .89 |
| 241285CX | 3006P-502 | 5k | 1.25 | 1.15 | .99 | .89 |
| 241293CX | 3006P-103 | 10k | 1.25 | 1.15 | .99 | .89 |
| 241306CX | 3006P-203 | 20k | 1.25 | 1.15 | .99 | .89 |
| 241314CX | 3006P-253 | 25k | 1.25 | 1.15 | .99 | .89 |
| 241322CX | 3006P-503 | 50k | 1.25 | 1.15 | .99 | .89 |
| 241331CX | 3006P-104 | 100k | 1.25 | 1.15 | .99 | .89 |
| 241349CX | 3006P-204 | 200k | 1.25 | 1.15 | .99 | .89 |
| 241357CX | 3006P-254 | 250k | 1.25 | 1.15 | .99 | .89 |
| 241365CX | 3006P-504 | 500k | 1.25 | 1.15 | .99 | .89 |
| 241373CX | 3006P-105 | 1M | 1.25 | 1.15 | .99 | .89 |

1/2-Watt Linear Taper (±10%)

- Temperature range: -55°C to +125°C
- Non-rotational key
- Non-slotted shaft end
- Mounting hole: 0.3125"
- Shaft diameter: 0.25"
- Shaft length: 0.50"
- Maximum panel thickness: 0.1875"



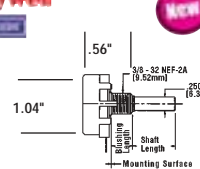
29081CX

Includes: Mounting hardware

| Part No. | Mfr. Cross Ref. No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------------|--------|--------|--------|--------|
| 29049CX | P1K | 1k | \$0.99 | \$0.79 | \$0.65 | \$0.55 |
| 29196CX | P5K | 5k | .99 | .79 | .65 | .55 |
| 29081CX | P10K | 10k | .99 | .79 | .65 | .55 |
| 29102CX | P100K | 100k | .99 | .79 | .65 | .55 |
| 29065CX | P1MEG | 1M | .99 | .79 | .65 | .55 |

RV4N Style 2-Watt Linear Taper (±10%)

- Shaft diameter: 0.25"
- Shaft length: 0.875"
- 2W @ 70°C ambient
- Conductive plastic element
- Temp. range: -55°C to +120°C
- Non-rotational key
- Mounting hole: 0.375"
- Maximum panel thickness: 0.25"



95417CX

Includes: Mounting hardware

| Part No. | Product No. | Military No. | Ohms | 1 | 10 | 50 | 100 |
|----------|-------------|--------------|------------|--------|--------|--------|--------|
| 241550CX | 53C3-50 | RV4NAYSD500A | 50 | \$7.39 | \$6.54 | \$5.45 | \$4.51 |
| 241568CX | 53C3-100 | RV4NAYSD101A | 100 | 7.39 | 6.54 | 5.45 | 4.51 |
| 241576CX | 53C3-150 | RV4NAYSD151A | 150 | 7.39 | 6.54 | 5.45 | 4.51 |
| 241584CX | 53C3-250 | RV4NAYSD251A | 250 | 7.39 | 6.54 | 5.45 | 4.51 |
| 241592CX | 53C3-350 | RV4NAYSD351A | 350 | 7.39 | 6.54 | 5.45 | 4.51 |
| 183610CX | 53C3-500 | RV4NAYSD501A | 500 | 7.95 | 6.95 | 5.95 | 5.25 |
| 13936CX | 53C3-1k | RV4NAYSD102A | 1k | 7.95 | 6.95 | 5.95 | 5.25 |
| 241605CX | 53C3-1.5k | RV4NAYSD152A | 1.5k | 7.39 | 6.54 | 5.45 | 4.51 |
| 241613CX | 53C3-2k | RV4NAYSD202A | 2k | 7.39 | 6.54 | 5.45 | 4.51 |
| 241621CX | 53C3-2.5k | RV4NAYSD252A | 2.5k | 7.39 | 6.54 | 5.45 | 4.51 |
| 241630CX | 53C3-3.5k | RV4NAYSD352A | 3.5k | 7.39 | 6.54 | 5.45 | 4.51 |
| 13995CX | 53C3-5k | RV4NAYSD502A | 5k | 7.95 | 6.95 | 5.95 | 5.25 |
| 13952CX | 53C3-10k | RV4NAYSD103A | 10k | 7.95 | 6.95 | 5.99 | 5.25 |
| 241648CX | 53C3-15k | RV4NAYSD153A | 15k | 7.39 | 6.54 | 5.45 | 4.51 |
| 241656CX | 53C3-20k | RV4NAYSD203A | 20k | 7.39 | 6.54 | 5.45 | 4.51 |
| 241664CX | 53C3-25k | RV4NAYSD253A | 25k | 7.39 | 6.54 | 5.45 | 4.51 |
| 95417CX | 53C3-50k | RV4NAYSD503A | 50k | 7.95 | 6.95 | 5.95 | 5.25 |
| 13979CX | 53C3-100k | RV4NAYSD104A | 100k | 7.95 | 6.95 | 5.95 | 5.25 |
| 241672CX | 53C3-150k | RV4NAYSD154A | 150k | 7.39 | 6.54 | 5.45 | 4.51 |
| 241681CX | 53C3-250k | RV4NAYSD254A | 250k | 7.39 | 6.54 | 5.45 | 4.51 |
| 241699CX | 53C3-350k | RV4NAYSD354A | 350k | 7.39 | 6.54 | 5.45 | 4.51 |
| 241701CX | 53C3-500k | RV4NAYSD504A | 500k | 7.39 | 6.54 | 5.45 | 4.51 |
| 241710CX | 53C3-750k | RV4NAYSD754A | 750k | 7.39 | 6.54 | 5.45 | 4.51 |
| 241728CX | 53C3-1Meg | RV4NAYSD105A | 1M | 7.39 | 6.54 | 5.45 | 4.51 |
| 241736CX | 53C3-2Meg | RV4NAYSD205A | 2M | 7.39 | 6.54 | 5.45 | 4.51 |
| 286942CX | 53C3-3Meg | RV4NAYSD305A | 3M | 7.39 | 6.54 | 5.45 | 4.51 |

Instrumentation Knobs

(1/4" Shaft Diameters)



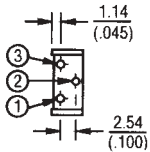
| Part No. | Product No. | Body Color | Pointer Color | Size (H" x Dia.") | 1 | 10 | 100 |
|----------|-------------------|-------------|---------------|-------------------|--------|--------|--------|
| 264823CX | CPBTAA191A1S6.4BK | Black/Black | White | .79 x .77 | \$0.99 | \$0.93 | \$0.88 |
| 265148CX | JK-907A-YW | Grey/Yellow | Yellow | .76 x 1.27 | 1.99 | 1.87 | 1.78 |
| 265164CX | JK-907B-RD | Grey/Red | Red | .86 x .94 | 1.99 | 1.87 | 1.78 |
| 265210CX | JK-907C-BL | Grey/Blue | Blue | .72 x .68 | 1.99 | 1.87 | 1.78 |
| 265084CX | JK-905D | Black/Green | White | .58 x .57 | .92 | .73 | .66 |
| 265261CX | CR-MS-5C5-T18 | Grey | Grey | .68 x .51 | .78 | .67 | .61 |
| 264882CX | RN-112A | Black/Alum | Numeric | .90 x 1.46 | .99 | .93 | .88 |
| 102787CX | JK-903C | Black | White | .54 x 1.25 | .64 | .41 | .39 |

For Complete Specs and additional Knobs see page 111.

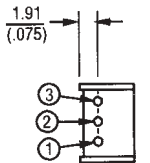
1/2-Watt, 3/8" Square, Multi-Turn Trimming Potentiometers, Top Adjustment (±10%)

3296Y, 3299W, and 3299Y Series

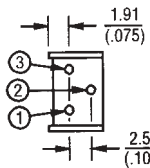
- Resistance tolerance: ±10%
- 25-turns nominal
- Insulation resistance: (500VDC) 1000MΩ minimum
- Contact resistance variation: 1% or 3Ω maximum
- Absolute minimum resistance: 1% or 2Ω maximum
- Power rating: 0.5W @ 70°C (300V maximum)



3296Y Series



3299W Series

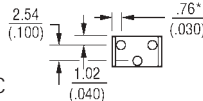


3299Y Series

1/4-Watt, 1/4" Square Trimming Potentiometers, Top Adjustment (±10%)

3266W Series Value Equivalents

- Resistance tolerance: ±10%
- 12-turns nominal
- Insulation resistance: (500VDC) 1,000MΩ minimum
- Contact resistance variation: 3% or 3Ω maximum (whichever is greater)
- Absolute min. resistance: 1% or 2Ω maximum (whichever is greater)
- Power rating: 0.25W @ 70°C (300V maximum)



| Part No. | Mfr. Cross Ref. | Ohms | 1 | 10 | 50 | 100 |
|----------|-----------------|------|--------|--------|--------|--------|
| 254609CX | 3266W-500 | 50 | \$2.29 | \$1.99 | \$1.93 | \$1.83 |
| 254617CX | 3266W-101 | 100 | 2.29 | 1.99 | 1.93 | 1.83 |
| 254625CX | 3266W-201 | 200 | 2.29 | 1.99 | 1.93 | 1.83 |
| 254633CX | 3266W-501 | 500 | 2.29 | 1.99 | 1.93 | 1.83 |
| 254641CX | 3266W-102 | 1k | 2.29 | 1.99 | 1.93 | 1.83 |
| 254650CX | 3266W-202 | 2k | 2.29 | 1.99 | 1.93 | 1.83 |
| 254668CX | 3266W-502 | 5k | 2.29 | 1.99 | 1.93 | 1.83 |
| 254676CX | 3266W-103 | 10k | 2.29 | 1.99 | 1.93 | 1.83 |
| 254684CX | 3266W-203 | 20k | 2.29 | 1.99 | 1.93 | 1.83 |
| 254692CX | 3266W-253 | 25k | 2.29 | 1.99 | 1.93 | 1.83 |
| 254705CX | 3266W-503 | 50k | 2.29 | 1.99 | 1.93 | 1.83 |
| 254713CX | 3266W-104 | 100k | 2.29 | 1.99 | 1.93 | 1.83 |
| 254721CX | 3266W-204 | 200k | 2.29 | 1.99 | 1.93 | 1.83 |
| 254730CX | 3266W-504 | 500k | 2.29 | 1.99 | 1.93 | 1.83 |
| 254748CX | 3266W-105 | 1M | 2.29 | 1.99 | 1.93 | 1.83 |

Attention Budget-Minded Buyers!

Jameco now offers high-quality Bourns® equivalents below, and they're priced to save you money. You'll get consistent form, fit and function, without paying the added surcharge for brand name components.

3296Y Series Value Equivalents

| Part No. | Mfr. Cross Ref. | Ohms | 1 | 10 | 50 | 100 |
|----------|-----------------|------|--------|--------|--------|--------|
| 240696CX | 3296Y-100 | 10 | \$1.89 | \$1.69 | \$1.49 | \$1.35 |
| 240709CX | 3296Y-200 | 20 | 1.89 | 1.69 | 1.49 | 1.35 |
| 240717CX | 3296Y-500 | 50 | 1.89 | 1.69 | 1.49 | 1.35 |
| 240725CX | 3296Y-101 | 100 | 1.89 | 1.69 | 1.49 | 1.35 |
| 240733CX | 3296Y-201 | 200 | 1.89 | 1.69 | 1.49 | 1.35 |
| 240741CX | 3296Y-501 | 500 | 1.89 | 1.69 | 1.49 | 1.35 |
| 240750CX | 3296Y-102 | 1k | 1.89 | 1.69 | 1.49 | 1.35 |
| 240768CX | 3296Y-202 | 2k | 1.89 | 1.69 | 1.49 | 1.35 |
| 240776CX | 3296Y-502 | 5k | 1.89 | 1.69 | 1.49 | 1.35 |
| 240784CX | 3296Y-103 | 10k | 1.89 | 1.69 | 1.49 | 1.35 |
| 240792CX | 3296Y-203 | 20k | 1.89 | 1.69 | 1.49 | 1.35 |
| 240805CX | 3296Y-253 | 25k | 1.89 | 1.69 | 1.49 | 1.35 |
| 240813CX | 3296Y-503 | 50k | 1.89 | 1.69 | 1.49 | 1.35 |
| 240821CX | 3296Y-104 | 100k | 1.89 | 1.69 | 1.49 | 1.35 |
| 240830CX | 3296Y-254 | 250k | 1.89 | 1.69 | 1.49 | 1.35 |
| 240848CX | 3296Y-504 | 500k | 1.89 | 1.69 | 1.49 | 1.35 |
| 240856CX | 3296Y-105 | 1M | 1.89 | 1.69 | 1.49 | 1.35 |
| 240864CX | 3296Y-205 | 2M | 1.89 | 1.69 | 1.49 | 1.35 |

3299W Series Value Equivalents

| Part No. | Mfr. Cross Ref. | Ohms | 1 | 10 | 50 | 100 |
|----------|-----------------|------|--------|--------|--------|--------|
| 241058CX | 3299W-100 | 10 | \$2.09 | \$1.99 | \$1.75 | \$1.55 |
| 241066CX | 3299W-200 | 20 | 2.09 | 1.99 | 1.75 | 1.55 |
| 241074CX | 3299W-500 | 50 | 2.09 | 1.99 | 1.75 | 1.55 |
| 241082CX | 3299W-101 | 100 | 2.09 | 1.99 | 1.75 | 1.55 |
| 241091CX | 3299W-201 | 200 | 2.09 | 1.99 | 1.75 | 1.55 |
| 241103CX | 3299W-501 | 500 | 2.09 | 1.99 | 1.75 | 1.55 |
| 241111CX | 3299W-102 | 1k | 2.09 | 1.99 | 1.75 | 1.55 |
| 241120CX | 3299W-202 | 2k | 2.09 | 1.99 | 1.75 | 1.55 |
| 241138CX | 3299W-502 | 5k | 2.09 | 1.99 | 1.75 | 1.55 |
| 241146CX | 3299W-103 | 10k | 2.09 | 1.99 | 1.75 | 1.55 |
| 241154CX | 3299W-203 | 20k | 2.09 | 1.99 | 1.75 | 1.55 |
| 241162CX | 3299W-253 | 25k | 2.09 | 1.99 | 1.75 | 1.55 |
| 241171CX | 3299W-503 | 50k | 2.09 | 1.99 | 1.75 | 1.55 |
| 241189CX | 3299W-104 | 100k | 2.09 | 1.99 | 1.75 | 1.55 |
| 241197CX | 3299W-254 | 250k | 2.09 | 1.99 | 1.75 | 1.55 |
| 241200CX | 3299W-504 | 500k | 2.09 | 1.99 | 1.75 | 1.55 |
| 241218CX | 3299W-105 | 1M | 2.09 | 1.99 | 1.75 | 1.55 |
| 241226CX | 3299W-205 | 2M | 2.09 | 1.99 | 1.75 | 1.55 |

3299Y Series Value Equivalents

| Part No. | Mfr. Cross Ref. | Ohms | 1 | 10 | 50 | 100 |
|----------|-----------------|------|--------|--------|--------|--------|
| 240872CX | 3299Y-100 | 10 | \$2.09 | \$1.99 | \$1.75 | \$1.55 |
| 240881CX | 3299Y-200 | 20 | 2.09 | 1.99 | 1.75 | 1.55 |
| 240899CX | 3299Y-500 | 50 | 2.09 | 1.99 | 1.75 | 1.55 |
| 240901CX | 3299Y-101 | 100 | 2.09 | 1.99 | 1.75 | 1.55 |
| 240910CX | 3299Y-201 | 200 | 2.09 | 1.99 | 1.75 | 1.55 |
| 191417CX | 3299Y-501 | 500 | 2.09 | 1.99 | 1.75 | 1.55 |
| 191396CX | 3299Y-102 | 1k | 2.09 | 1.99 | 1.75 | 1.55 |
| 240944CX | 3299Y-202 | 2k | 2.09 | 1.99 | 1.75 | 1.55 |
| 191425CX | 3299Y-502 | 5k | 2.09 | 1.99 | 1.75 | 1.55 |
| 240961CX | 3299Y-103 | 10k | 2.09 | 1.99 | 1.75 | 1.55 |
| 240979CX | 3299Y-203 | 20k | 2.09 | 1.99 | 1.75 | 1.55 |
| 240987CX | 3299Y-253 | 25k | 2.09 | 1.99 | 1.75 | 1.55 |
| 240995CX | 3299Y-503 | 50k | 2.09 | 1.99 | 1.75 | 1.55 |
| 191409CX | 3299Y-104 | 100k | 2.09 | 1.99 | 1.75 | 1.55 |
| 241015CX | 3299Y-254 | 250k | 2.09 | 1.99 | 1.75 | 1.55 |
| 241023CX | 3299Y-504 | 500k | 2.09 | 1.99 | 1.75 | 1.55 |
| 241031CX | 3299Y-105 | 1M | 2.09 | 1.99 | 1.75 | 1.55 |
| 241040CX | 3299Y-205 | 2M | 2.09 | 1.99 | 1.75 | 1.55 |

Bourns® Potentiometers Below

Jameco now offers a broad selection of industry-renown Bourns multi-turn potentiometers below. They're ideal for integration into devices requiring high-precision pots.



3296Y – Y Layout Solder Pins

| Part No. | Product No. | Ohms | 1 | 10 | 50 | 100 |
|----------|-------------|------|--------|--------|--------|--------|
| 240338CX | 3296Y-1-100 | 10 | \$2.10 | \$1.89 | \$1.69 | \$1.49 |
| 240346CX | 3296Y-1-200 | 20 | 2.10 | 1.89 | 1.69 | 1.49 |
| 240354CX | 3296Y-1-500 | 50 | 2.10 | 1.89 | 1.69 | 1.49 |
| 240362CX | 3296Y-1-101 | 100 | 2.10 | 1.89 | 1.69 | 1.49 |
| 240371CX | 3296Y-1-201 | 200 | 2.10 | 1.89 | 1.69 | 1.49 |
| 240389CX | 3296Y-1-501 | 500 | 2.10 | 1.89 | 1.69 | 1.49 |
| 240397CX | 3296Y-1-102 | 1k | 2.10 | 1.89 | 1.69 | 1.49 |
| 240400CX | 3296Y-1-202 | 2k | 2.10 | 1.89 | 1.69 | 1.49 |
| 240418CX | 3296Y-1-502 | 5k | 2.10 | 1.89 | 1.69 | 1.49 |
| 240426CX | 3296Y-1-103 | 10k | 2.10 | 1.89 | 1.69 | 1.49 |
| 240434CX | 3296Y-1-203 | 20k | 2.10 | 1.89 | 1.69 | 1.49 |
| 240442CX | 3296Y-1-253 | 25k | 2.10 | 1.89 | 1.69 | 1.49 |
| 240451CX | 3296Y-1-503 | 50k | 2.10 | 1.89 | 1.69 | 1.49 |
| 240469CX | 3296Y-1-104 | 100k | 2.10 | 1.89 | 1.69 | 1.49 |
| 240477CX | 3296Y-1-254 | 250k | 2.10 | 1.89 | 1.69 | 1.49 |
| 240485CX | 3296Y-1-504 | 500k | 2.10 | 1.89 | 1.69 | 1.49 |
| 240493CX | 3296Y-1-105 | 1M | 2.10 | 1.89 | 1.69 | 1.49 |
| 240506CX | 3296Y-1-205 | 2M | 2.10 | 1.89 | 1.69 | 1.49 |

3299W – In-Line Solder Pins

| Part No. | Product No. | Ohms | 1 | 10 | 50 | 100 |
|----------|-------------|------|--------|--------|--------|--------|
| 238553CX | 3299W-1-100 | 10 | \$2.39 | \$2.25 | \$1.99 | \$1.79 |
| 238561CX | 3299W-1-200 | 20 | 2.39 | 2.25 | 1.99 | 1.79 |
| 238570CX | 3299W-1-500 | 50 | 2.39 | 2.25 | 1.99 | 1.79 |
| 238588CX | 3299W-1-101 | 100 | 2.39 | 2.25 | 1.99 | 1.79 |
| 238596CX | 3299W-1-201 | 200 | 2.39 | 2.25 | 1.99 | 1.79 |
| 238609CX | 3299W-1-501 | 500 | 2.39 | 2.25 | 1.99 | 1.79 |
| 183556CX | 3299W-1-102 | 1k | 2.39 | 2.25 | 1.99 | 1.79 |
| 238617CX | 3299W-1-202 | 2k | 2.39 | 2.25 | 1.99 | 1.79 |
| 238625CX | 3299W-1-502 | 5k | 2.39 | 2.25 | 1.99 | 1.79 |
| 183564CX | 3299W-1-103 | 10k | 2.39 | 2.25 | 1.99 | 1.79 |
| 238633CX | 3299W-1-203 | 20k | 2.39 | 2.25 | 1.99 | 1.79 |
| 238641CX | 3299W-1-253 | 25k | 2.39 | 2.25 | 1.99 | 1.79 |
| 238650CX | 3299W-1-503 | 50k | 2.39 | 2.25 | 1.99 | 1.79 |
| 183572CX | 3299W-1-104 | 100k | 2.39 | 2.25 | 1.99 | 1.79 |
| 238668CX | 3299W-1-254 | 250k | 2.39 | 2.25 | 1.99 | 1.79 |
| 238676CX | 3299W-1-504 | 500k | 2.39 | 2.25 | 1.99 | 1.79 |
| 238684CX | 3299W-1-105 | 1M | 2.39 | 2.25 | 1.99 | 1.79 |
| 238692CX | 3299W-1-205 | 2M | 2.39 | 2.25 | 1.99 | 1.79 |

3299Y – Y Layout Solder Pins

| Part No. | Product No. | Ohms | 1 | 10 | 50 | 100 |
|----------|-------------|------|--------|--------|--------|--------|
| 240514CX | 3299Y-1-100 | 10 | \$2.39 | \$2.19 | \$1.79 | \$1.59 |
| 240522CX | 3299Y-1-200 | 20 | 2.39 | 2.19 | 1.79 | 1.59 |
| 240531CX | 3299Y-1-500 | 50 | 2.39 | 2.19 | 1.79 | 1.59 |
| 240549CX | 3299Y-1-101 | 100 | 2.39 | 2.19 | 1.79 | 1.59 |
| 240557CX | 3299Y-1-201 | 200 | 2.39 | 2.19 | 1.79 | 1.59 |
| 240565CX | 3299Y-1-501 | 500 | 2.39 | 2.19 | 1.79 | 1.59 |
| 240573CX | 3299Y-1-102 | 1k | 2.39 | 2.19 | 1.79 | 1.59 |
| 240581CX | 3299Y-1-202 | 2k | 2.39 | 2.19 | 1.79 | 1.59 |
| 240590CX | 3299Y-1-502 | 5k | 2.39 | 2.19 | 1.79 | 1.59 |
| 240602CX | 3299Y-1-103 | 10k | 2.39 | 2.19 | 1.79 | 1.59 |
| 240611CX | 3299Y-1-203 | 20k | 2.39 | 2.19 | 1.79 | 1.59 |
| 240629CX | 3299Y-1-253 | 25k | 2.39 | 2.19 | 1.79 | 1.59 |
| 240637CX | 3299Y-1-503 | 50k | 2.39 | 2.19 | 1.79 | 1.59 |
| 240645CX | 3299Y-1-104 | 100k | 2.39 | 2.19 | 1.79 | 1.59 |
| 240653CX | 3299Y-1-254 | 250k | 2.39 | 2.19 | 1.79 | 1.59 |
| 240661CX | 3299Y-1-504 | 500k | 2.39 | 2.19 | 1.79 | 1.59 |
| 240670CX | 3299Y-1-105 | 1M | 2.39 | 2.19 | 1.79 | 1.59 |
| 240688CX | 3299Y-1-205 | 2M | 2.39 | 2.19 | 1.79 | 1.59 |

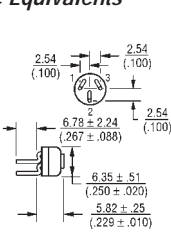
Potentiometers – Single-Turn Cermet and Trimming



1/2-Watt, 1/4" Round, Cermet Potentiometers Top Adjustment (±10%)

3329P Series Value Equivalents

- Sealed to withstand wave soldering and immersion cleaning process
- Extended temperature range: -55°C to +150°C
- TO-5 grid
- Terminals: solderable pins

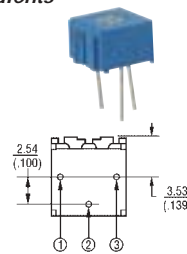


| Part No. | Mfr. Cross Ref. | Ohms | 1 | 10 | 50 | 100 |
|----------|-----------------|------|--------|--------|--------|--------|
| 254457CX | 3329P-500 | 50 | \$1.70 | \$1.53 | \$1.29 | \$1.21 |
| 254465CX | 3329P-101 | 100 | 1.70 | 1.53 | 1.29 | 1.21 |
| 254473CX | 3329P-201 | 200 | 1.70 | 1.53 | 1.29 | 1.21 |
| 254481CX | 3329P-501 | 500 | 1.70 | 1.53 | 1.29 | 1.21 |
| 254490CX | 3329P-102 | 1k | 1.70 | 1.53 | 1.29 | 1.21 |
| 254502CX | 3329P-202 | 2k | 1.70 | 1.53 | 1.29 | 1.21 |
| 254511CX | 3329P-502 | 5k | 1.70 | 1.53 | 1.29 | 1.21 |
| 254529CX | 3329P-103 | 10k | 1.70 | 1.53 | 1.29 | 1.21 |
| 254537CX | 3329P-203 | 20k | 1.70 | 1.53 | 1.29 | 1.21 |
| 254545CX | 3329P-253 | 25k | 1.70 | 1.53 | 1.29 | 1.21 |
| 254553CX | 3329P-503 | 50k | 1.70 | 1.53 | 1.29 | 1.21 |
| 254561CX | 3329P-104 | 100k | 1.70 | 1.53 | 1.29 | 1.21 |
| 254570CX | 3329P-204 | 200k | 1.70 | 1.53 | 1.29 | 1.21 |
| 254588CX | 3329P-504 | 500k | 1.70 | 1.53 | 1.29 | 1.21 |
| 254596CX | 3329P-105 | 1M | 1.70 | 1.53 | 1.29 | 1.21 |

1/2-Watt, 1/4" Square, Single-Turn Cermet Potentiometers Top Adjustment (±10%)

3362P Series Value Equivalents

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ
- Absolute minimum resistance: 1% or 2Ω (whichever is greater)
- Contact resistance variation: 1% or 3Ω maximum (whichever is greater)
- Power rating: 0.5W @ 70°C (300V max.)

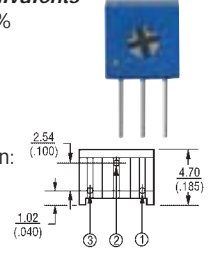


| Part No. | Mfr. Cross Ref. | Ohms | 1 | 10 | 50 | 100 |
|----------|-----------------|------|-------|-------|-------|-------|
| 253964CX | 3362P-101 | 100 | \$.59 | \$.55 | \$.45 | \$.42 |
| 253972CX | 3362P-201 | 200 | .59 | .55 | .45 | .42 |
| 254078CX | 3362P-501 | 500 | .59 | .55 | .45 | .42 |
| 253981CX | 3362P-102 | 1k | .59 | .55 | .45 | .42 |
| 253999CX | 3362P-202 | 2k | .59 | .55 | .45 | .42 |
| 254086CX | 3362P-502 | 5k | .59 | .55 | .45 | .42 |
| 254094CX | 3362P-103 | 10k | .59 | .55 | .45 | .42 |
| 254001CX | 3362P-203 | 20k | .59 | .55 | .45 | .42 |
| 254019CX | 3362P-253 | 25k | .59 | .55 | .45 | .42 |
| 254027CX | 3362P-503 | 50k | .59 | .55 | .45 | .42 |
| 254035CX | 3362P-104 | 100k | .59 | .55 | .45 | .42 |
| 254107CX | 3362P-204 | 200k | .59 | .55 | .45 | .42 |
| 254043CX | 3362P-504 | 500k | .59 | .55 | .45 | .42 |
| 254115CX | 3362P-105 | 1M | .59 | .55 | .45 | .42 |

1/2-Watt, 1/4" Square, Single-Turn Cermet Potentiometers Side Adjustment (±10%)

3362W Series Value Equivalents

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ
- Absolute minimum resistance: 1% or 2Ω (whichever is greater)
- Contact resistance variation: 1% or 3Ω maximum (whichever is greater)
- Power rating: 0.5W @ 70°C (300V max.)

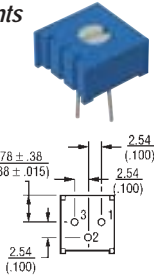


| Part No. | Mfr. Cross Ref. | Ohms | 1 | 10 | 50 | 100 |
|----------|-----------------|------|-------|-------|-------|-------|
| 254140CX | 3362W-101 | 100 | \$.60 | \$.54 | \$.45 | \$.41 |
| 254158CX | 3362W-201 | 200 | .60 | .54 | .45 | .41 |
| 254166CX | 3362W-501 | 500 | .60 | .54 | .45 | .41 |
| 254174CX | 3362W-102 | 1k | .60 | .54 | .45 | .41 |
| 254182CX | 3362W-202 | 2k | .60 | .54 | .45 | .41 |
| 254191CX | 3362W-502 | 5k | .60 | .54 | .45 | .41 |
| 254203CX | 3362W-103 | 10k | .60 | .54 | .45 | .41 |
| 254211CX | 3362W-203 | 20k | .60 | .54 | .45 | .41 |
| 254220CX | 3362W-253 | 25k | .60 | .54 | .45 | .41 |
| 254238CX | 3362W-503 | 50k | .60 | .54 | .45 | .41 |
| 254246CX | 3362W-104 | 100k | .60 | .54 | .45 | .41 |
| 254254CX | 3362W-204 | 200k | .60 | .54 | .45 | .41 |
| 254262CX | 3362W-504 | 500k | .60 | .54 | .45 | .41 |
| 254271CX | 3362W-105 | 1M | .60 | .54 | .45 | .41 |

1/2-Watt, 3/8" Square, Single-Turn Trimming Potentiometers Top Adjustment (±10%)

3386P Series Value Equivalents

- Resistance tolerance: ±10%
- Absolute minimum resistance: 2Ω maximum
- Insulation resistance: (500VDC) 1,000MΩ minimum
- Contact resistance variation: 2% or 3Ω maximum (whichever is greater)
- Power rating: 0.5W @ 85°C (300V maximum)

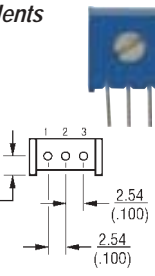


| Part No. | Mfr. Cross Ref. | Ohms | 1 | 10 | 50 | 100 |
|----------|-----------------|------|-------|-------|-------|-------|
| 254289CX | 3386P-500 | 50 | \$.85 | \$.76 | \$.67 | \$.64 |
| 254297CX | 3386P-101 | 100 | .85 | .76 | .67 | .64 |
| 254300CX | 3386P-201 | 200 | .85 | .76 | .67 | .64 |
| 254318CX | 3386P-501 | 500 | .85 | .76 | .67 | .64 |
| 254326CX | 3386P-102 | 1k | .85 | .76 | .67 | .64 |
| 254334CX | 3386P-202 | 2k | .85 | .76 | .67 | .64 |
| 254342CX | 3386P-502 | 5k | .85 | .76 | .67 | .64 |
| 254351CX | 3386P-103 | 10k | .85 | .76 | .67 | .64 |
| 254369CX | 3386P-203 | 20k | .85 | .76 | .67 | .64 |
| 254377CX | 3386P-253 | 25k | .85 | .76 | .67 | .64 |
| 254385CX | 3386P-503 | 50k | .85 | .76 | .67 | .64 |
| 254393CX | 3386P-104 | 100k | .85 | .76 | .67 | .64 |
| 254406CX | 3386P-204 | 200k | .85 | .76 | .67 | .64 |
| 254414CX | 3386P-254 | 250k | .85 | .76 | .67 | .64 |
| 254422CX | 3386P-504 | 500k | .85 | .76 | .67 | .64 |
| 254431CX | 3386P-105 | 1M | .85 | .76 | .67 | .64 |
| 254449CX | 3386P-205 | 2M | .85 | .76 | .67 | .64 |

1/2-Watt, 3/8" Square, Single-Turn Trimming Potentiometers Side Adjustment (±10%)

3386W Series Value Equivalents

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ minimum
- Absolute minimum resistance: 2Ω maximum
- Contact resistance variation: 2% or 3Ω maximum (whichever is greater)
- Adjustment angle: 280° nominal

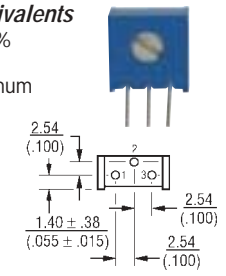


| Part No. | Mfr. Cross Ref. | Ohms | 1 | 10 | 50 | 100 |
|----------|-----------------|------|-------|-------|-------|-------|
| 241381CX | 3386W-500 | 50 | \$.89 | \$.79 | \$.69 | \$.65 |
| 241390CX | 3386W-101 | 100 | .89 | .79 | .69 | .65 |
| 241402CX | 3386W-201 | 200 | .89 | .79 | .69 | .65 |
| 241411CX | 3386W-501 | 500 | .89 | .79 | .69 | .65 |
| 241429CX | 3386W-102 | 1k | .89 | .79 | .69 | .65 |
| 241437CX | 3386W-202 | 2k | .89 | .79 | .69 | .65 |
| 241445CX | 3386W-502 | 5k | .89 | .79 | .69 | .65 |
| 241453CX | 3386W-103 | 10k | .89 | .79 | .69 | .65 |
| 241461CX | 3386W-203 | 20k | .89 | .79 | .69 | .65 |
| 241470CX | 3386W-253 | 25k | .89 | .79 | .69 | .65 |
| 241488CX | 3386W-503 | 50k | .89 | .79 | .69 | .65 |
| 241496CX | 3386W-104 | 100k | .89 | .79 | .69 | .65 |
| 241509CX | 3386W-204 | 200k | .89 | .79 | .69 | .65 |
| 241517CX | 3386W-254 | 250k | .89 | .79 | .69 | .65 |
| 241525CX | 3386W-504 | 500k | .89 | .79 | .69 | .65 |
| 241533CX | 3386W-105 | 1M | .89 | .79 | .69 | .65 |
| 241541CX | 3386W-205 | 2M | .89 | .79 | .69 | .65 |

1/2-Watt, 3/8" Square, Single-Turn Trimming Potentiometers Side Adjustment (±10%)

3386X Series Value Equivalents

- Resistance tolerance: ±10%
- Insulation resistance: (500VDC) 1,000MΩ minimum
- Absolute minimum resistance: 2Ω maximum
- Contact resistance variation: 2% or 3Ω maximum (whichever is greater)
- Power rating: 0.5W @ 85°C (300V max.)



| Part No. | Mfr. Cross Ref. | Ohms | 1 | 10 | 50 | 100 |
|----------|-----------------|------|-------|-------|-------|-------|
| 264604CX | 3386X-500 | 50 | \$.85 | \$.76 | \$.67 | \$.64 |
| 264612CX | 3386X-101 | 100 | .85 | .76 | .67 | .64 |
| 264621CX | 3386X-201 | 200 | .85 | .76 | .67 | .64 |
| 264639CX | 3386X-501 | 500 | .85 | .76 | .67 | .64 |
| 264647CX | 3386X-102 | 1k | .85 | .76 | .67 | .64 |
| 264655CX | 3386X-202 | 2k | .85 | .76 | .67 | .64 |
| 264663CX | 3386X-502 | 5k | .85 | .76 | .67 | .64 |
| 264671CX | 3386X-103 | 10k | .85 | .76 | .67 | .64 |
| 264680CX | 3386X-203 | 20k | .85 | .76 | .67 | .64 |
| 264698CX | 3386X-253 | 25k | .85 | .76 | .67 | .64 |
| 264701CX | 3386X-503 | 50k | .85 | .76 | .67 | .64 |
| 264719CX | 3386X-104 | 100k | .85 | .76 | .67 | .64 |
| 264727CX | 3386X-204 | 200k | .85 | .76 | .67 | .64 |
| 264735CX | 3386X-254 | 250k | .85 | .76 | .67 | .64 |
| 264743CX | 3386X-504 | 500k | .85 | .76 | .67 | .64 |
| 264751CX | 3386X-105 | 1M | .85 | .76 | .67 | .64 |
| 264760CX | 3386X-205 | 2M | .85 | .76 | .67 | .64 |

Phone 1-800-831-4242 Fax 1-800-237-6948

Order Anytime 24x7x365

See Page 27 for Digital Potentiometers.



1/4-Watt Miniature Linear ($\pm 20\%$)

X201 (19/32") Vertical Mount

- 15mm thick
- Power rating:
below 5k Ω – 1/4 watt @ 40°C
5k Ω & above – 1/4 watt @ 55°C
- Total rotation: 260° $\pm 5^\circ$
- Voltage rating: 350 VDC

Cross Reference Chart

| Equivalent to: | |
|----------------|-------|
| CTS | X201R |
| Bourns | 3355X |
| PIHER | PT15 |

| Part No. | Mfr. Cross Ref. No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------|-------|-------|-------|-------|
| 94692CX | X201R1K | 1k | \$.45 | \$.39 | \$.35 | \$.29 |
| 35502CX | X201R252B | 2.5k | .45 | .39 | .35 | .29 |
| 94705CX | X201R5K | 5k | .45 | .39 | .35 | .29 |
| 94713CX | X201R10K | 10k | .45 | .39 | .35 | .29 |
| 172136CX | X201R25K | 25k | .45 | .39 | .35 | .29 |
| 94721CX | X201R50K | 50k | .45 | .39 | .35 | .29 |
| 94730CX | X201R100K | 100k | .45 | .39 | .35 | .29 |

1/2-Watt, 3/8" Square, Single-Turn Cermet ($\pm 10\%$)

- Top adjustment
- 1/2 watt linear taper @ 70°C
- PC pins: .100" grid (2.54mm)
- Sealed to guard against contaminants
- Pin spacing: 0.1" (\uparrow P/N 43060CX & P/N 105216CX: 0.2")
- Temperature range: -55°C to +125°C

Quantity
SAVE

Cross Ref. Chart

| Equivalent to: | |
|----------------|---------|
| Allen Bradley | E2B |
| Beckman | 72PR |
| Bourns | 3386P |
| Mecopcal | 8038 |
| Murata | 3104P |
| Spectrol | 63P |
| VRN | 780-12P |
| Weston | 840P |

| Part No. | Mfr. Cross Ref. No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------|-------|-------|-------|-------|
| 43123CX | 63P500 | 500 | \$.85 | \$.79 | \$.69 | \$.49 |
| 42964CX | 63P1K | 1k | .85 | .79 | .69 | .49 |
| 43043CX | 63P2K | 2k | .85 | .79 | .69 | .49 |
| 43078CX | 63P5K | 5k | .85 | .79 | .69 | .49 |
| 43001CX | 63P10K | 10k | .85 | .79 | .69 | .49 |
| 43051CX | 63P20K | 20k | .85 | .76 | .61 | .42 |
| 43107CX | 63P50K | 50k | .85 | .76 | .61 | .42 |
| 43027CX | 63P100K | 100k | .85 | .79 | .69 | .49 |
| 43060CX | 63P300K \uparrow | 300k | .85 | .76 | .61 | .46 |
| 63212CX | 63P500K | 500k | .85 | .76 | .61 | .42 |
| 42981CX | 63P1MEG | 1M | .85 | .79 | .69 | .49 |
| 105216CX | 63P2MEG \uparrow | 2M | .85 | .76 | .65 | .52 |

1/2-Watt Trimming Potentiometers ($\pm 10\%$)

3362P Series

- Linear taper
- Insulation resistance: 500VDC
1,000M Ω minimum
- Absolute minimum resistance:
1% or 2 Ω maximum
- Contact resistance variation:
1% or 3 Ω maximum
- Rotational life: 200 cycles
- Terminals: solderable pins
- Top adjustment: 240° nominal
- Wiper positioning: 50° nominal



Cross Reference Chart

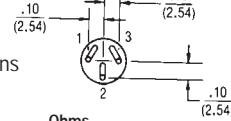
| Equivalent to: | |
|----------------|-------|
| Bourns | 3362P |
| Copal | CT-6P |
| Murata | PVC6 |
| Vishay | 76 |

| Part No. | Mfr. Cross Ref. No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------|-------|-------|-------|-------|
| 191644CX | 3362P-200 | 20 | \$.69 | \$.62 | \$.47 | \$.42 |
| 189341CX | 3362P-500 | 50 | .69 | .62 | .47 | .42 |
| 182810CX | 3362P-501 | 500 | .69 | .62 | .47 | .42 |
| 182828CX | 3362P-502 | 5k | .69 | .62 | .47 | .42 |
| 182836CX | 3362P-103 | 10k | .69 | .62 | .47 | .42 |
| 182844CX | 3362P-204 | 200k | .69 | .62 | .47 | .42 |
| 182852CX | 3362P-105 | 1M | .69 | .62 | .47 | .42 |

1/2-Watt, 1/4" Round, Cermet ($\pm 10\%$)

3329P Series Value Equivalents

- Sealed to withstand wave soldering and immersion cleaning process
- Extended temperature range: -55°C to +150°C
- TO-5 grid
- Top adjustment
- Terminals: solderable pins



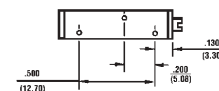
Cross Ref. Chart

| Equivalent to: | |
|----------------|-------|
| Beckman | 82M |
| Bourns | 3329P |
| Mecopcal | 8050 |
| MEC | 471 |
| Murata | 3321P |
| Spectrol | 62-3 |
| VRN | 171 |
| Weston | 567 |

| Part No. | Mfr. Cross Ref. No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------|--------|--------|--------|--------|
| 95441CX | 3329P-102 | 1k | \$1.89 | \$1.59 | \$1.29 | \$1.19 |
| 95450CX | 3329P-502 | 5k | 1.89 | 1.59 | 1.29 | 1.19 |
| 96719CX | 3329P-103 | 10k | 1.89 | 1.59 | 1.29 | 1.19 |
| 95484CX | 3329P-104 | 100k | 1.89 | 1.59 | 1.29 | 1.19 |

3/4-Watt, 3/4" Rectangular 15-Turn Linear Cermet ($\pm 10\%$)

- PC pins: .100" grid (2.54mm)
- Temperature range: -55°C to +125°C
- Sealed to guard against contaminants
- Side adjustment



Cross Ref. Chart

| Equivalent to: | |
|----------------|--------|
| Allen Bradley | 94P |
| Beckman | 89PR |
| Bourns | 3006P |
| Littion | 6034Y |
| Mecopcal | 8034 |
| Murata | 2101P |
| Spectrol | 43P |
| VRN | 961-20 |
| Weston | 830P |

| Part No. | Mfr. Cross Ref. No. | Ohms | 1 | 10 | 100 | 500 |
|----------|---------------------|------|--------|-------|-------|-------|
| 181972CX | 43P201 | 200 | \$1.05 | \$.94 | \$.76 | \$.57 |
| 41937CX | 43P500 | 500 | 1.05 | .99 | .89 | .75 |
| 41785CX | 43P1K | 1k | 1.05 | .99 | .89 | .75 |
| 41865CX | 43P2K | 2k | 1.05 | .99 | .89 | .75 |
| 41890CX | 43P5K | 5k | 1.05 | .99 | .89 | .75 |
| 41822CX | 43P10K | 10k | 1.05 | .99 | .89 | .75 |
| 41873CX | 43P20K | 20k | 1.05 | .99 | .89 | .75 |
| 41911CX | 43P50K | 50k | 1.05 | .99 | .89 | .75 |
| 41849CX | 43P100K | 100k | 1.05 | .99 | .89 | .75 |
| 63001CX | 43P200K | 200k | 1.05 | .99 | .89 | .75 |
| 41953CX | 43P500K | 500k | 1.05 | .99 | .89 | .75 |
| 41806CX | 43P1MEG | 1M | 1.05 | .99 | .89 | .75 |

1/2 and 3/4-Watt Potentiometer Kits



20-drawer component cabinet with every kit!

- Kit includes: 20-drawer component cabinet (81701CX), 20 clear plastic drawers (85454CX), 20 clear dividers (85446CX)
- Cabinet size: 6.0"L x 15.0"W x 7.9"H
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Cabinet is wall-mountable or free standing

For more kits,
see pages
226 - 227

1/2-Watt Single Turn Cermet Pot Kit

See left (63P Series) for photos and specs.

Includes 100 pcs. (10 values) 1/2-watt Linear Taper Potentiometer

SAVE \$28

| 10 each | 10 each | 10 each | 10 each | 10 each | |
|----------|------------------------------|----------|------------|----------|---------|
| 63P500Ω | 63P5kΩ | 63P500kΩ | 63P1kΩ | 63P50kΩ | |
| 63P2kΩ | 63P20kΩ | 63P1MΩ | 63P10kΩ | 63P100kΩ | |
| Part No. | Description | | Wt. (lbs.) | 1 | 10 |
| 85034CX | 100 pcs. single turn Pot kit | | 4.9 | \$65.95 | \$59.35 |

3/4-Watt 15 Turn Cermet Pot Kit

See above (43P Series) for photos and specs.

Includes 100 pcs. (10 values) 3/4-watt Linear Taper Potentiometer

SAVE \$32

| | | | | | |
|----------|--------------------------|----------|------------|----------|---------|
| 10 each | 10 each | 10 each | 10 each | 10 each | |
| 43P500Ω | 43P5kΩ | 43P500kΩ | 43P1kΩ | 43P50kΩ | |
| 43P2kΩ | 43P20kΩ | 43P1MΩ | 43P10kΩ | 43P100kΩ | |
| Part No. | Description | | Wt. (lbs.) | 1 | 10 |
| 85043CX | 100 pcs. 15 turn Pot kit | | 4.9 | \$82.95 | \$74.65 |

Axial Leaded RF Chokes

4600 Series

- Inductive tolerance: 10%
- Operating temperature: -55°C to +125°C
- Size: A = 6.8mm max.; B = 19.0mm max.
C = 25.0±2.0mm; D = 0.65±0.5mm

| Part No. | Mfr. Cross Ref. No. | L (μH) | Q (min.) | Res. Freq. Min. (MHz) | DCR Max. (μ) | Max. DC Current (mA) | Pricing | | |
|----------|---------------------|--------|----------|-----------------------|--------------|----------------------|---------|-------|-------|
| | | | | | | | 1 | 10 | 100 |
| 208063CX | 4602 | 1.0 | 60 | 190 | .050 | 2000 | \$.69 | \$.62 | \$.55 |
| 208071CX | 4604 | 1.5 | 58 | 149 | .093 | 1800 | .69 | .62 | .55 |
| 208080CX | 4606 | 2.4 | 56 | 120 | .190 | 1500 | .69 | .62 | .55 |
| 208098CX | 4608 | 3.9 | 60 | 93 | .450 | 1000 | .69 | .62 | .55 |
| 208101CX | 4609 | 5.5 | 57 | 80 | .670 | 850 | .69 | .62 | .55 |
| 208119CX | 4610 | 6.2 | 57 | 76 | .830 | 700 | .69 | .62 | .55 |
| 208127CX | 4611 | 8.2 | 57 | 65 | 1.2 | 600 | .69 | .62 | .55 |
| 208135CX | 4612 | 10 | 36 | 61 | 1.5 | 500 | .69 | .62 | .55 |

NTC Thermistors

- Typical applications: temperature measurement/control/compensation; power supply fan control; PCB temperature monitoring
- Operating temperature range: -30°C ~ +130°C
- Maximum allowable power (@ 250°C): 0.55W
- Thermal dissipation factor: 6.5mW/OC (@ 250°C)
- Resistance value allowable difference: 10%

| Part No. | Mfr. Cross Ref. No. | Resistance (Ω @ 25°C) | B Constant (25/50°C >10%) | Temp. Coef. @ 25°C (%/°C) | Pricing | | | |
|----------|---------------------|-----------------------|---------------------------|---------------------------|---------|-------|-------|-------|
| | | | | | 1 | 10 | 100 | 500 |
| 207520CX | NTC-101 | 100 | 3100 | -3.5 | \$.59 | \$.49 | \$.39 | \$.32 |
| 207511CX | NTC-201 | 200 | 3100 | -3.5 | .59 | .49 | .40 | .30 |
| 207503CX | NTC-301 | 300 | 3100 | -3.5 | .59 | .49 | .39 | .32 |
| 207491CX | NTC-501 | 500 | 3100 | -3.5 | .59 | .49 | .39 | .32 |
| 207482CX | NTC-102 | 1k | 3800 | -4.3 | .59 | .49 | .39 | .32 |
| 207474CX | NTC-202 | 2k | 3800 | -4.3 | .59 | .49 | .39 | .32 |
| 207466CX | NTC-302 | 3k | 3900 | -4.4 | .59 | .49 | .39 | .32 |
| 207458CX | NTC-402 | 4k | 3900 | -4.4 | .59 | .49 | .39 | .32 |
| 207440CX | NTC-502 | 5k | 3900 | -4.4 | .59 | .49 | .39 | .32 |
| 207036CX | NTC-103 | 10k | 4100 | -4.6 | .59 | .49 | .39 | .32 |
| 207028CX | NTC-153 | 15k | 4100 | -4.6 | .59 | .49 | .40 | .30 |
| 207010CX | NTC-203 | 20k | 4200 | -4.7 | .59 | .49 | .39 | .32 |
| 207001CX | NTC-503 | 50k | 4200 | -4.7 | .59 | .49 | .39 | .32 |
| 206990CX | NTC-104 | 100k | 4400 | -4.9 | .59 | .49 | .39 | .32 |
| 206981CX | NTC-204 | 200k | 4500 | -5.1 | .59 | .49 | .39 | .32 |

Epoxy Conformal Coated Chokes

- Operating temperature: -25°C to +85°C
- Tolerance: 5%
- Size: A = 3.2mm max.
B = 7.0mm max.
C = 0.48±0.5mm
(except P/N 208143CX: 0.50±0.05mm)
D = 63±3mm

Quantity
SAVE

| Part No. | L (μH) | Q (min.) | Test. Freq (MHz) | Res. Freq. Min. (MHz) | DCR Max. (μ) | Max. DC Curr. (mA) | Pricing | | |
|----------|--------|----------|------------------|-----------------------|--------------|--------------------|---------|-------|-------|
| | | | | | | | 1 | 10 | 100 |
| 208143CX | 10 | 60 | 7.96 | 28.7 | 1.56 | 670 | \$.49 | \$.45 | \$.39 |
| 208151CX | 27 | 50 | 2.52 | 10.2 | 2.39 | 410 | .49 | .44 | .33 |
| 208160CX | 33 | 50 | 2.52 | 8.4 | 2.71 | 380 | .49 | .45 | .39 |
| 208178CX | 47 | 50 | 2.52 | 6.9 | 3.3 | 330 | .49 | .45 | .39 |
| 208186CX | 82 | 45 | 2.52 | 5.4 | 4.62 | 240 | .49 | .44 | .33 |
| 208194CX | 100 | 45 | 2.52 | 5.0 | 4.98 | 240 | .49 | .45 | .39 |
| 208207CX | 220 | 45 | 0.796 | 3.3 | 9.23 | 180 | .49 | .45 | .39 |
| 208215CX | 330 | 45 | 0.796 | 2.7 | 13.2 | 140 | .49 | .44 | .33 |
| 208223CX | 470 | 45 | 0.796 | 2.2 | 21.4 | 120 | .49 | .45 | .39 |
| 208231CX | 820 | 45 | 0.796 | 1.7 | 28.4 | 90 | .49 | .44 | .33 |
| 208240CX | 1000 | 45 | 0.796 | 1.5 | 31.3 | 80 | .49 | .45 | .39 |

High Current Toroid Inductors

5700 Series

- Low radiation • Low core loss
- High current capacity
- Size: A = 22.22mm max.; B = 11.09mm max.
C = 15.0±1.0mm; D = 1.2±0.5mm
- See page 154 for EMI suppression cores
- See technical datasheets on www.Jameco.com for complete specifications

| Part No. | Mfr. Cross Ref. No. | L (μH) | IDC max. (A) | L min. @ IDC | Pricing | | | | |
|----------|---------------------|--------|--------------|--------------|---------|--------|--------|--------|--------|
| | | | | | 1 | 10 | 25 | 50 | 100 |
| 208258CX | 5701 | 10 | 11.0 | 5 | \$3.99 | \$3.05 | \$2.74 | \$2.26 | \$2.06 |
| 208266CX | 5702 | 25 | 5.5 | 12 | 3.99 | 3.05 | 2.74 | 2.26 | 2.06 |
| 208311CX | 5711 | 50 | 9.5 | 25 | 4.95 | 4.46 | 3.79 | 3.03 | 2.27 |
| 208303CX | 5707 | 75 | 5.0 | 40 | 4.32 | 3.75 | 3.37 | 2.78 | 2.53 |
| 208274CX | 5703 | 125 | 2.75 | 70 | 3.99 | 3.05 | 2.74 | 2.26 | 2.06 |
| 208320CX | 5712 | 150 | 4.75 | 85 | 4.93 | 3.75 | 3.37 | 2.78 | 2.53 |
| 208282CX | 5704 | 275 | 2.0 | 150 | 3.99 | 3.05 | 2.74 | 2.26 | 2.06 |
| 208291CX | 5705 | 450 | 1.5 | 250 | 4.32 | 3.28 | 2.95 | 2.44 | 2.21 |

Varistors


LA Series Varistors (Radial Lead)

- AC power line applications • Power supplies • High energy absorption
- UL recognized as "transient voltage surge suppressors"
- UL recognized as "across-the-line components"

| LA Series | | Size | Max. Ratings (+85°C) | | | Characteristics at 25°C | | Pricing | | | |
|-----------|---------------------|-----------------|----------------------|--------------------|------------------------|---|----------------------------|---------|-------|-------|-------|
| | | | Continuous RMS Volt. | Transient DC Volt. | Energy (10/1000μs) | Max Clamping Volt. @ I _{PK} Value Curr. (8/20μs) | | | | | |
| Part No. | Mfr. Cross Ref. No. | Disc. Dia. (mm) | V _{m(ac)} | V _{m(dc)} | W _{tm} Joules | V | I _{PK} =2.0A Amps | 1 | 10 | 100 | 500 |
| 34446CX | V130LA10A | 14 | 130 | 175 | 38 | 340 | 50 | \$.29 | \$.25 | \$.22 | \$.20 |
| 34471CX | V250LA20A | 14 | 250 | 330 | 72 | 650 | 50 | .39 | .35 | .32 | .30 |
| 34462CX | V130LA20A | 20 | 130 | 175 | 70 | 340 | 100 | .59 | .56 | .54 | .52 |

ZA Series Varistor (Radial Lead)

- Low DC voltage applications
- UL recognized as "transient voltage surge suppressors"
- Used for highly sensitive devices • Low transient energy
- Printed circuit board designs
- Computer equipment • Alarm systems

| ZA Series | | Size | Characteristics at 25°C | | | | | |  | | | |
|-----------|---------------------|-----------|-------------------------|---------------------|-------|--|-----------------------|---------|---|-------|-------|--|
| | | | Varistor Voltage | | | Max. Clamping Volt. | | | | | | |
| | | Disc. | @ 1 mA DC Test Current | | | @ I _{PK} Value Curr. (8/20μs) | | | | | | |
| Part No. | Mfr. Cross Ref. No. | Dia. (mm) | Min. | V _N (dc) | Max. | V | I _{PK} =2.0A | Pricing | | | | |
| | | | Volts | Volts | Volts | Volts | Amps | 1 | 10 | 100 | 500 | |
| 190449CX | V18ZA1 | 7 | 16.0 | 18.0 | 20.0 | 35 | 2.5 | \$.21 | \$.17 | \$.15 | \$.13 | |

NTE Varistors (Metal Oxide)

- High transient current capability—up to 6500A
- Fast response time—less than 35ns
- Excellent voltage clamping characteristics
- Very low temperature coefficient
- Low standby current
- High energy capability
- Very low leakage current
- Low capacitance
- Low overshoot characteristics

| NTE Series | | Size | Max. Ratings (T _A =25°C) | | | Characteristics at 25°C | | Pricing | | |
|------------|-------------|-----------------|-------------------------------------|--------------------------|--------------------|---|---------------------------|---------|-------|-------|
| | | | Continuous RMS Volt. | Transient DC Volt. | Energy (10/1000μs) | Max Clamping Volt. @ I _{PK} Value Curr. (8/20μs) | | | | |
| Part No. | Product No. | Disc. Dia. (mm) | V _{m(ac)} Volts | V _{m(dc)} Volts | Joules | V | I _{PK} =1mA Amps | 1 | 10 | 25 |
| 261286CX | NTE1V020 | 8.5 | 20 | 26 | 1.5 | 70 | 250 | \$1.03 | \$.99 | \$.95 |
| 261294CX | NTE1V130 | 8.5 | 30 | 38 | 2.3 | 95 | 250 | 1.08 | 1.03 | .99 |
| 261307CX | NTE2V130 | 16.0 | 135 | 180 | 39.0 | 355 | 4500 | 1.85 | 1.79 | 1.75 |
| 261315CX | NTE2V250 | 16.0 | 240 | 320 | 70.0 | 630 | 4500 | 2.66 | 2.54 | 2.41 |
| 261323CX | NTE524V25 | 23.0 | 240 | 320 | 129.0 | 630 | 6500 | 2.40 | 2.35 | 2.29 |

For more New
NTE Varistors
see page 36

NTE

Resettable Fuses

Resettable fuses improve reliability and lower costs. Polymer Positive Temperature Coefficient (PPTC) fuses have provided designers in numerous industries a new tool in their battle to improve product quality and performance. As PPTC fuses are resettable, warranty costs and service calls are largely avoided.

RA Series

- Rated voltage: (V_{MAX} , V): 60
- Max. current: (I_{MAX} , A): 40
- Lead length (D): 7.6mm (min.)
- Thickness (E): 3.1mm (min.)

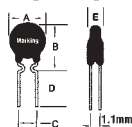


Fig. 1

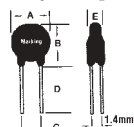


Fig. 2

RB Series

- Rated voltage: (V_{MAX} , V): 30
- Max. current: (I_{MAX} , A): 40
- Lead length (D): 7.6mm (min.)
- Thickness (E): 3.0mm (min.)

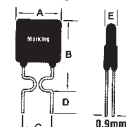


Fig. 3

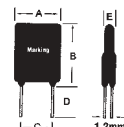


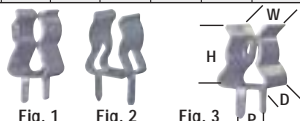
Fig. 4

| Part No. | Mfr. Cross Ref. No. | Hold Curr. (I_H , A) | Trip Curr. (I_T , A) | Fig. | Size (mm) | | | Pricing | | | |
|----------|---------------------|-------------------------|-------------------------|------|-----------|------|------|---------|-----|-----|-----|
| | | | | | A | B | C | 1 | 10 | 100 | 500 |
| 199814CX | RA010-60 | 0.10 | 0.20 | 1 | 7.4 | 12.7 | 5.1 | .43 | .41 | .39 | .31 |
| 199822CX | RA017-60 | 0.17 | 0.34 | 1 | 7.4 | 12.7 | 5.1 | .43 | .39 | .35 | .31 |
| 199831CX | RA020-60 | 0.20 | 0.40 | 1 | 7.4 | 12.2 | 5.1 | .43 | .41 | .39 | .31 |
| 199849CX | RA025-60 | 0.25 | 0.50 | 1 | 7.4 | 12.7 | 5.1 | .43 | .41 | .39 | .31 |
| 199857CX | RA030-60 | 0.30 | 0.60 | 1 | 7.4 | 13.0 | 5.1 | .43 | .41 | .39 | .31 |
| 199865CX | RA040-60 | 0.40 | 0.80 | 1 | 7.6 | 13.5 | 5.1 | .47 | .44 | .41 | .31 |
| 199873CX | RA050-60 | 0.50 | 1.00 | 1 | 7.9 | 13.7 | 5.1 | .49 | .46 | .43 | .32 |
| 199881CX | RA065-60 | 0.65 | 1.30 | 1 | 9.7 | 14.5 | 5.1 | .50 | .47 | .43 | .34 |
| 199890CX | RA075-60 | 0.75 | 1.50 | 1 | 10.4 | 15.2 | 5.1 | .50 | .47 | .43 | .34 |
| 199902CX | RA090-60 | 0.90 | 1.80 | 1 | 11.7 | 15.8 | 5.1 | .52 | .49 | .45 | .30 |
| 199911CX | RA110-60 | 1.10 | 2.20 | 2 | 13.0 | 18.0 | 5.1 | .57 | .55 | .52 | .40 |
| 199929CX | RA135-60 | 1.35 | 2.70 | 2 | 14.5 | 19.6 | 5.1 | .58 | .56 | .53 | .41 |
| 199937CX | RA160-60 | 1.60 | 3.20 | 2 | 16.3 | 21.3 | 5.1 | .60 | .57 | .54 | .42 |
| 199945CX | RA185-60 | 1.85 | 3.70 | 2 | 17.8 | 22.9 | 5.1 | .59 | .55 | .45 | .39 |
| 199953CX | RA250-60 | 2.50 | 5.00 | 2 | 21.3 | 26.4 | 10.2 | .70 | .63 | .57 | .49 |
| 199961CX | RA300-60 | 3.00 | 6.00 | 2 | 24.9 | 30.0 | 10.2 | .74 | .67 | .60 | .50 |
| 199970CX | RA375-60 | 3.75 | 7.50 | 2 | 28.5 | 33.5 | 10.2 | .74 | .67 | .53 | .40 |

Fuse Clips

- Low contact resistance
- Low profile
- Withstands shock and vibration

Prepackaged: order in increments of 10, 100 or 1000



| Part No. | Description | Fig. | Size (H" x W" x D" x P") | 10 | 100 | 1000 |
|----------|-------------------------|------|--------------------------|-----|-----|------|
| 102859CX | 5mm, front leads | 1 | .37 x .25 x .21 x .19 | .12 | .09 | .05 |
| 119280CX | 5mm, side leads | 2 | .33 x .25 x .20 x .21 | .09 | .08 | .07 |
| 102841CX | 1/4", front leads (10A) | 3 | .32 x .27 x .25 x .23 | .09 | .08 | .07 |
| 220732CX | 5mm, front leads (10A) | 3 | .33 x .27 x .25 x .29 | .15 | .10 | .07 |

1/4" x 1/4" Standard Fuses

Fast Acting Fuses (250V)
AGC/3AG Fuses

Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Amps | Mfr. | 10 | 100 | 1000 |
|----------|---------|---------|-----|-----|------|
| 69403CX | 250mA | Various | .20 | .18 | .16 |
| 10410CX | 500mA | Various | .20 | .18 | .16 |
| 197510CX | 630mA | Various | .20 | .18 | .16 |
| 10372CX | 1 amp | Various | .20 | .12 | .11 |
| 197528CX | 1.6 amp | Various | .20 | .12 | .11 |
| 10381CX | 2 amp | Various | .20 | .12 | .11 |
| 197536CX | 2.5 amp | Various | .21 | .12 | .09 |
| 69438CX | 3 amp | Various | .20 | .12 | .11 |
| 197544CX | 4 amp | Various | .22 | .20 | .18 |
| 10401CX | 5 amp | Various | .22 | .20 | .18 |
| 197552CX | 6.3 amp | Various | .22 | .20 | .18 |
| 69462CX | 10 amp | Various | .25 | .22 | .20 |
| 186301CX | 16 amp | Various | .25 | .22 | .20 |

Slow Blow Fuses (250V)
MDL/3AG Fuses

| Part No. | Amps | Mfr. | 1 | 10 | 100 | 1000 |
|----------|--------|---------|-----|-----|-----|------|
| 25654CX | 250mA | Various | .74 | .59 | .50 | .40 |
| 25689CX | 500mA | Various | .71 | .59 | .50 | .37 |
| 25638CX | 1 amp | Various | .71 | .59 | .50 | .37 |
| 25646CX | 2 amp | Various | .54 | .43 | .39 | .28 |
| 69534CX | 3 amp | Various | .54 | .44 | .34 | .28 |
| 25671CX | 5 amp | Various | .54 | .44 | .34 | .28 |
| 69569CX | 10 amp | Various | .74 | .65 | .51 | .40 |

5mm x 20mm Miniature Fuses

Fast Acting Fuses (250V)
GMA Fuses

Recommended for new designs
Prepackaged: order in increments of 10, 100, 500 or 1000

| Part No. | Amps | Mfr. | 10 | 100 | 500 | 1000 |
|----------|-------|---------|-----|-----|-----|------|
| 103886CX | 250mA | Various | .20 | .15 | .11 | .10 |
| 102040CX | 500mA | Various | .20 | .15 | .11 | .10 |
| 103907CX | 1 amp | Various | .20 | .15 | .11 | .10 |
| 103915CX | 2 amp | Various | .20 | .15 | .11 | .10 |
| 103923CX | 3 amp | Various | .20 | .15 | .11 | .10 |
| 103931CX | 5 amp | Various | .20 | .15 | .11 | .10 |

Slow Blow Fuses (250V)
GMA Fuses

Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Amps | Mfr. | 10 | 100 | 1000 |
|----------|----------|---------|-----|-----|------|
| 197501CX | 500mA | Various | .29 | .26 | .23 |
| 197464CX | 1 amp | Various | .29 | .25 | .19 |
| 197472CX | 2 amp | Various | .35 | .32 | .29 |
| 197481CX | 3.15 amp | Various | .35 | .32 | .29 |
| 197499CX | 5 amp | Various | .35 | .32 | .29 |

For NTE Thermal Fuses see page 36.

NTE



Panel Mount Fuse Holders

1/4" x 1/4" Standard Thumbscrew Cap

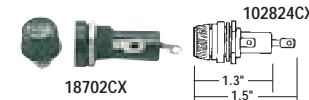
- Straight solder terminal; 10A @ 250VAC

| Part No. | Approvals | Size | Mounting Hole | 1 | 10 | 100 | 1000 |
|----------|-----------|-------------------|-------------------------------|------|------|------|------|
| 120993CX | — | 1.95"L x .71"Dia. | .58"Dia. (Double D-style) | .79 | .69 | .55 | .49 |
| 18702CX | UL/CSA | 2.05"L x .71"Dia. | .58"Dia. x .52"Flat (D-style) | 1.59 | 1.35 | 1.15 | .99 |

5mm x 20mm Miniature Thumbscrew Cap

- Straight solder terminal; Size: 1.5"L x 0.6"Dia.

| Part No. | Approvals | Current | Mounting Hole | 1 | 10 | 100 | 1000 |
|----------|-----------|--------------|---------------------|-----|-----|-----|------|
| 150463CX | — | 6A @ 250VAC | .50"Dia. x .43"Flat | .99 | .86 | .75 | .57 |
| 102824CX | UL/CSA | 10A @ 250VAC | .50"Dia. | .99 | .85 | .72 | .59 |



In-Line Fuse Holders

- Built-in spring ensures good fuse connection
- Vinyl covered wire with stranded copper center
- Wire color: red; except for P/N 108783CX orange

1/4" x 1/4" Standard

| Part No. | AWG | Wire Lgths | Body Size(L) | Body Color | 1 | 10 | 100 |
|----------|-----|------------|--------------|------------|------|------|-----|
| 109321CX | 22 | 3.5/3" | 2.4" | Black | .65 | .58 | .52 |
| 102867CX | 20 | 3/3" | 2.2" | White | .65 | .58 | .48 |
| 151917CX | 18 | 6/6" | 2.4" | White | .99 | .85 | .65 |
| 108783CX | 16 | 21/26" | 2.2" | Black | .99 | .87 | .68 |
| 108791CX | 14 | 19/25" | 2.5" | Black | 1.59 | 1.19 | .83 |

5mm x 20mm Miniature

| Part No. | AWG | Wire Color | Body Size (L) | 1 | 10 | 100 |
|----------|-----|------------|---------------|-----|-----|-----|
| 109330CX | 20 | Red | 1.8" | .69 | .56 | .45 |

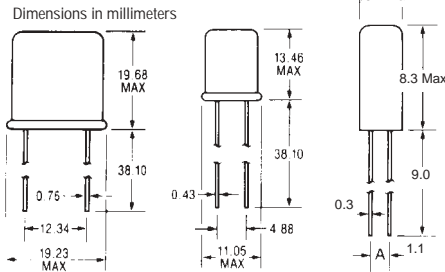
5mm x 20mm Miniature Low Profile Fuse Holder

- Accepts 5 x 20mm fuses
- 10A @ 250VAC
- Size: 1.4"L x 0.6"Dia.
- D Style mounting hole: 1 ea. 0.5"Dia x .46" flat

| Part No. | Description | 1 | 10 | 100 |
|----------|--------------------|--------|--------|--------|
| 102832CX | Fuse holder UL/CSA | \$1.95 | \$1.79 | \$1.59 |



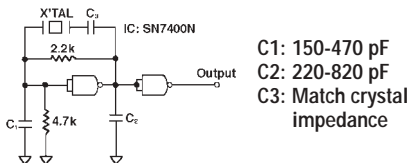
Crystals



HC33/U Case HC49/U (HC18/U) Case TF Case

- Frequency calibration tolerance: $\pm 50\text{ppm}$ @ 25°C
- Operating temperature: -10°C to $+60^\circ\text{C}$
- Drive level: 4.0 mW maximum
- Frequency stability tolerance: $\pm 50\text{ ppm}$ from -10°C to $+60^\circ\text{C}$
- Shunt capacitance: 7pF maximum

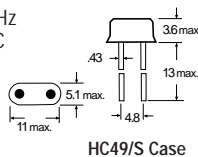
Application Reference (4-14MHz) (Parallel Resonance)



C1: 150-470 pF
C2: 220-820 pF
C3: Match crystal impedance

Low Profile Crystals

- Frequency range: 3.5 to 70.0MHz
- Operating temp.: -10°C to $+60^\circ\text{C}$
- Drive level: 0.5mW (fundamental frequency)
- Aging: $\pm 5\text{ppm/year}$ maximum
- Frequency stability tolerance: $\pm 50\text{ppm}$



HC49/S Case

Crystals vs. Crystal Oscillators – Which is Right?

When designing a digital circuit, engineers must often consider what type of oscillator is most appropriate. Designs could incorporate a discrete crystal with accompanying RC resonator and driver. Alternatively, one might employ an integrated TTL oscillator.

While the decision to choose one over the other can seem complicated, just a few considerations solve most common situations.

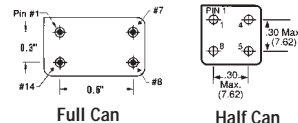
- Does circuit require a TTL compatible clock?
Yes: Use the TTL Oscillator.
- Are you capable of designing the appropriate series or parallel resonant circuit required for your circuit and frequency?
Yes: Design around crystals for the appropriate signal type.
- Can you easily condition a TTL signal?
Yes: Design signal translator around oscillator.
No: Hire help!

Practical Practices
Money Saving Tips for the Engineer

TTL Crystal Oscillators

Specifications:

- Input voltage: $+5\text{VDC} \pm 0.5\text{VDC}$
- OSC series oscillators fit into a 14-pin DIP socket P/N 133006CX, right
- Frequency stability $\pm 100\text{ppm}$
- Operating temperature: 0°C to 70°C



Full Can

Half Can

| Pin # | Function |
|-------|----------|
| 1 | N/C |
| 7 | GND |
| 8 | Output |
| 14 | +5VDC |

Full Can

| Pin # | Function |
|-------|----------|
| 1 | N/C |
| 4 | GND |
| 5 | Output |
| 8 | +5VDC |

Half Can

14-Pin Crystal Oscillator Socket

- Can be PCB mounted without the modifications that would be needed with DIP-IC sockets
- Low profile solder tail; machine tooled on 4 pins
- Good for prototyping and PCB mounting



| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|-------------------------|--------|--------|--------|--------|
| 133006CX | Oscillator socket | \$0.55 | \$0.46 | \$0.34 | \$0.31 |

| HC33/U Case | | | | | | Pricing | | | |
|-------------|---------------------|-----------------|-----------|-------------------------------|--|---------|--------|--------|--------|
| Part No. | Mfr. Cross Ref. No. | Frequency (MHz) | Impedance | Microprocessor | | 1 | 10 | 100 | 1000 |
| 14349CX | CY1 | 1.0 | 13pF | MC6800/6808/6809E/6500 series | | \$4.95 | \$4.49 | \$3.95 | \$3.49 |

| HC49/U (HC18/U) Case | | | | | | | | | |
|----------------------|---------------------|-----------------|-----------|---------------------------|--|--------|--------|--------|--------|
| Part No. | Mfr. Cross Ref. No. | Frequency (MHz) | Impedance | Microprocessor | | 1 | 10 | 100 | 1000 |
| 102613CX | CY1.843 | 1.8432 | 18pF | MC14411/MC6802 | | \$0.99 | \$0.72 | \$0.51 | \$0.39 |
| 102621CX | CY2.0 | 2.0 | Series | 2650/F-8 | | .81 | .73 | .58 | .44 |
| 101274CX | CY2.457 | 2.4576 | 32pF | CDP1702/1802C/1804/1804C | | .99 | .89 | .75 | .69 |
| 14525CX | CY3.27 | 3.2768 | 18pF | IM6100C/CDP1802/CDP1804 | | .99 | .89 | .79 | .69 |
| 14533CX | CY3.57 | 3.579545 | 18pF | MC6801,2,3/MM5369 | | .59 | .54 | .42 | .39 |
| 14568CX | CY3.68 | 3.6864 | 18pF | 8748/8035-8 | | .89 | .79 | .69 | .59 |
| 14592CX | CY4 | 4.0 | 20pF | MCS-40/MC6802,8,9/CDP1802 | | .59 | .54 | .41 | .39 |
| 14621CX | CY4.91 | 4.9152 | Series | CDP1802C/1804/1804C | | .89 | .79 | .69 | .59 |
| 14681CX | CY6 | 6.0 | 18pF | MCS-48/IM8048 | | .79 | .70 | .59 | .40 |
| 14699CX | CY6.14 | 6.144 | 30pF | MCS-85/8085 | | .37 | .34 | .30 | .25 |
| 14710CX | CY7.37 | 7.3728 | 30pF | 8051/8031 | | .89 | .80 | .65 | .45 |
| 14728CX | CY8 | 8.0 | Series | IM6100A/MC68B09 | | .89 | .79 | .69 | .54 |
| 14381CX | CY10 | 10.0 | Series | MCS-85/8085A-2 | | .79 | .69 | .59 | .49 |
| 120061CX | CY11.05 | 11.0592 | Series | General purpose | | .89 | .79 | .69 | .59 |
| 14402CX | CY12 | 12.0 | Series | MCS-86/8086/8284/8202 | | .89 | .75 | .55 | .39 |
| 14453CX | CY16 | 16.0 | Series | 8080/8224/general purpose | | .62 | .56 | .50 | .44 |
| 14517CX | CY20 | 20.0 | Series | MCS-80/8080A/8224 | | .79 | .69 | .59 | .39 |

| TF Case | | | | | | 1 | 10 | 100 | 1000 |
|---------|---------|-----------|--------|-------------|--|--------|--------|--------|--------|
| 14584CX | CY32.76 | 32.768kHz | 10.5pF | Tuning fork | | \$0.89 | \$0.79 | \$0.69 | \$0.59 |

| HC49/S Case (Low Profile) | | | | | | | | | |
|---------------------------|---------------------|-----------------|--------|--------------|-----------------------------|--------|--------|--------|--------|
| Part No. | Mfr. Cross Ref. No. | Frequency (MHz) | Imped. | Max. Resist. | Microprocessor | 1 | 10 | 100 | 1000 |
| 137816CX | CY3.57LP | 3.579545 | 17pF | 150Ω | MC6801, 2, 3/MM5369 | \$0.95 | \$0.86 | \$0.68 | \$0.51 |
| 137832CX | CY4LP | 4.000 | 17pF | 120Ω | MCS-40/MC6802, 8, 9/CDP1802 | .99 | .89 | .79 | .69 |
| 137859CX | CY8LP | 8.000 | Series | 60Ω | IM6100A/MC68B09 | .75 | .67 | .59 | .53 |
| 137875CX | CY11.05LP | 11.0592 | Series | 50Ω | General purpose | 1.05 | .81 | .66 | .52 |
| 137891CX | CY16LP | 16.000 | Series | 40Ω | 8080/8224/general purpose | .39 | .36 | .29 | .27 |

| Part No. | Mfr. Cross Ref. No. | Frequency (MHz) | Size | Max Input Current | Rise Fall Time | Input Current | 1 | 10 | 100 | 1000 |
|----------|---------------------|-----------------|------|-------------------|----------------|---------------|--------|--------|--------|--------|
| 27861CX | OSC1 | 1.0 | Full | 7mA | 15ns | 45mA | \$2.75 | \$2.45 | \$1.59 | \$1.39 |
| 27879CX | OSC1.84 | 1.8432 | Full | 7mA | 15ns | 45mA | 2.39 | 2.15 | 1.75 | 1.29 |
| 27924CX | OSC2 | 2.0 | Full | 7mA | 15ns | 30mA | 1.99 | 1.79 | 1.59 | 1.39 |
| 27967CX | OSC4 | 4.0 | Full | 7mA | 10ns | 50mA | 1.99 | 1.79 | 1.59 | 1.39 |
| 27991CX | OSC8 | 8.0 | Full | 15mA | 15ns | 30mA | 1.99 | 1.79 | 1.59 | 1.39 |
| 27887CX | OSC10 | 10.0 | Full | 15mA | 10ns | 20mA | 1.99 | 1.79 | 1.59 | 1.39 |
| 102779CX | OSC10H | 10.0 | Half | 45mA | 6ns | 30mA | 1.45 | 1.05 | .96 | .79 |
| 144207CX | OSC11.05 | 11.059 | Full | 50mA | 10ns | 30mA | 1.35 | 1.19 | .95 | .89 |
| 27895CX | OSC12 | 12.0 | Full | 15mA | 10ns | 50mA | 1.99 | 1.79 | 1.49 | 1.05 |
| 108652CX | OSC14.31 | 14.31818 | Full | 15mA | 10ns | 50mA | 1.99 | 1.79 | 1.45 | 1.09 |
| 27908CX | OSC16 | 16.0 | Full | 15mA | 10ns | 50mA | 1.59 | 1.45 | 1.15 | .85 |
| 27932CX | OSC20 | 20.0 | Full | 17mA | 10ns | 20mA | 1.79 | 1.59 | 1.45 | 1.29 |
| 27941CX | OSC32 | 32.0 | Full | 18mA | 7ns | 15mA | 1.59 | 1.45 | 1.15 | .85 |
| 76822CX | OSC33 | 33.0 | Full | 18mA | 6ns | 15mA | 1.99 | 1.79 | 1.43 | 1.07 |
| 153226CX | OSC40 | 40.0 | Full | 18mA | 6ns | 15mA | 1.79 | 1.59 | 1.45 | 1.29 |
| 76831CX | OSC50 | 50.0 | Full | 25mA | 6ns | 25mA | 1.99 | 1.79 | 1.43 | 1.07 |
| 76857CX | OSC100 | 100.0 | Full | 25mA | 3ns | 90mA | 2.49 | 2.25 | 1.95 | 1.75 |

RG Type Bulk Coaxial Cable

RG58/U & RG58A/U (50Ω): Nom. cap.: 27pF/ft.; center resist.: 10.4Ω/1kft. @ 77°F
 RG59/U (75Ω): Nominal capacitance: 19pF/ft.; center resist.: 16.5Ω/1kft. @ 77°F
 RG174/U (50Ω): Nominal capacitance: 30.8pF/ft.; center resist.: 97Ω/1kft. @ 77°F

• Prepackaged and priced in increments of 100' or 1000'

| Part No. | Cross Ref. No. | Description | 100 ft. | 1000 ft. |
|----------|----------------|--|---------|----------|
| 102226CX | RG58/U | For ethernet, oscilloscopes (solid 20AWG) | \$12.00 | \$90.00 |
| 116898CX | RG58A/U | For ethernet, oscilloscopes (stranded 20AWG) | 19.00 | 150.00 |
| 102218CX | RG59/U | For CATV & video patch cords (solid 22AWG) | 13.00 | 110.00 |
| 112037CX | RG174/U | For ethernet, oscilloscopes (stranded 26AWG) | 19.00 | 169.00 |

Gray Flat Ribbon Cable – 28 AWG

• Single edge red stripe for pin 1 orientation
 • Insulation: polyvinyl chloride (PVC) • 28 AWG (7 x 36) • Center spacing: 0.05"
 • Voltage rating: 300V • Stranded copper wire • Temp. rating: -20°C to +80°C
 • Prepackaged and priced in increments of 10', 25', 100' or 500'

| Part No. | Cross Ref. No. | Conductors | 10 ft. | 25 ft. | 100 ft. | 500 ft. |
|----------|----------------|------------|--------|--------|---------|---------|
| 135538CX | 171-10 | 10 | \$1.49 | \$3.20 | \$11.50 | \$47.50 |
| 37671CX | 171-16 | 16 | 2.20 | 5.00 | 16.00 | 70.00 |
| 37719CX | 171-20 | 20 | 4.00 | 6.25 | 16.00 | 65.00 |
| 37760CX | 171-25 | 25 | 3.90 | 8.75 | 25.00 | 110.00 |
| 37807CX | 171-26 | 26 | 3.49 | 8.00 | 25.00 | 120.00 |
| 37840CX | 171-34 | 34 | 4.25 | 9.25 | 32.00 | 120.00 |
| 37911CX | 171-37 | 37 | 5.90 | 11.75 | 32.00 | 125.00 |
| 37920CX | 171-40 | 40 | 7.40 | 17.50 | 48.00 | 215.00 |
| 37954CX | 171-50 | 50 | 6.75 | 14.50 | 49.00 | 210.00 |
| 103481CX | 171-60 | 60 | 8.95 | 19.75 | 65.00 | 285.00 |

Multicolor Flat Ribbon Cable – 28 AWG

• Standard 10-color repeat sequence • 28 AWG (7 x 36)
 • Center spacing: 0.05" • Voltage rating: 300V
 • Temp. rating: -20°C to +80°C • Stranded copper wire
 • Prepackaged and priced in increments of 10', 25', 100' or 500'

| Part No. | Cross Ref. No. | Conductors | 10 ft. | 25 ft. | 100 ft. | 500 ft. |
|----------|----------------|------------|--------|--------|---------|---------|
| 112547CX | 28RC10 | 10 | \$1.95 | \$4.50 | \$17.50 | \$70.00 |
| 105671CX | 28RC16 | 16 | 3.25 | 7.25 | 24.00 | 100.00 |
| 105689CX | 28RC20 | 20 | 3.95 | 9.00 | 30.00 | 125.00 |
| 105697CX | 28RC25 | 25 | 6.29 | 14.25 | 49.95 | 219.95 |
| 105700CX | 28RC34 | 34 | 6.50 | 13.00 | 43.00 | 195.00 |
| 105726CX | 28RC40 | 40 | 8.69 | 19.55 | 69.49 | 299.95 |
| 105718CX | 28RC50 | 50 | 10.95 | 24.95 | 85.95 | 384.95 |

Solid Hook-Up Wire – 22 AWG

• Temp. range: -55°C to +105°C • Passes UL VW-1 flame test
 • MIL-W-16878D type B • Wt.: 100' (0.3 lbs.); 1000' (3.8 lbs.)
 • For use with breadboards such as the JE20 series, pg 221

| Part No. | Cross Ref. No. | Color | 100 ft. | Part No. | Cross Ref. No. | Color | 1000 ft. |
|----------|----------------|--------|---------|----------|----------------|--------|----------|
| 36767CX | 122BE/C | Blue | \$5.49 | 36775CX | 122BE/K | Blue | \$39.99 |
| 36791CX | 122BK/C | Black | 5.49 | 36804CX | 122BK/K | Black | 39.99 |
| 36821CX | 122G/C | Green | 5.49 | 36839CX | 122G/K | Green | 39.99 |
| 36855CX | 122R/C | Red | 5.49 | 36863CX | 122R/K | Red | 39.99 |
| 36880CX | 122W/C | White | 5.49 | 36898CX | 122W/K | White | 39.99 |
| 36919CX | 122Y/C | Yellow | 5.49 | 36927CX | 122Y/K | Yellow | 39.99 |

Modular Telephone Cable – 28 AWG

• Color coded conductors • Flat modular cable
 • PVC jacket • Gray • 7 x 43 stranded

| Part No. | Cross Ref. No. | Conductors | 100 ft. | 1000 ft. | 10000 ft. |
|----------|----------------|------------|---------|----------|-----------|
| 103430CX | MTC4 | 4 | \$3.30 | \$30.00 | \$250.00 |
| 103448CX | MTC6 | 6 | 7.00 | 50.00 | 430.00 |
| 103450CX | MTC8 | 8 | 10.00 | 62.00 | 450.00 |

2-Conductor Stranded Power/Speaker Cable – 24 AWG

• Black wire with white polarity stripe
 • Temperature rating: 20°C to 60°C
 • Stranded copper wire (7 x 32) • Operating voltage: 300V

| Part No. | Cross Ref. No. | Wt. (lbs.) | 100 ft. | Part No. | Cross Ref. No. | Wt. (lbs.) | 1000 ft. |
|----------|----------------|------------|---------|----------|----------------|------------|----------|
| 100280CX | 224BK/K | 0.8 | \$5.59 | 100298CX | 224BK/K | 7.8 | \$39.95 |

Category 5 Network Cable

• 100MHz • 8C • 4 twisted pairs • UTP
 • Insulation: polyethylene • Nom. OD.: 0.189"
 • Nom. impedance: 100Ω

Solid: uses modular plug P/N 119343CX, pg 66

Stranded: uses modular plug P/N 79281CX, pg 66

• Prepackaged and priced in increments of 25', 100' or 1000'

24 AWG UTP Category 5 Enhanced – 350MHz

| Part No. | Description | 25 ft. | 100 ft. | 1000 ft. |
|----------|-----------------|--------|---------|----------|
| 176225CX | Solid (gray) | \$5.00 | \$17.00 | \$100.00 |
| 176233CX | Stranded (gray) | 6.00 | 21.00 | 180.00 |
| 201582CX | Stranded (blue) | 6.00 | 18.00 | 160.00 |

24 AWG UTP Category 5 – 100MHz

| Part No. | Description | 25 ft. | 100 ft. | 1000 ft. |
|----------|----------------------------|--------|---------|----------|
| 118130CX | Stranded (gray) (7/32 AWG) | \$5.95 | \$19.35 | \$164.50 |

Multiconductor Shielded Computer Communication Cable – 24 AWG

• Stranded copper wire, multi-colored insulation
 • Insulated with polyvinyl chloride (PVC)
 • Voltage rating: 300V • Color: gray
 • 24 AWG (7 x 32 AWG) • Drain wire
 • Shielded 100% w/ aluminum mylar
 • Prepackaged and priced in increments of 25', 100' or 1000'

| Part No. | Cross Ref. No. | Conductors | Diameter | 25 ft. | 100 ft. | 1000 ft. |
|----------|----------------|------------|----------|--------|---------|----------|
| 31860CX | SC4 | 4 | 0.20" | \$4.75 | \$17.00 | \$140.00 |
| 31878CX | SC9 | 9 | 0.23" | 11.25 | 35.00 | 270.00 |
| 31843CX | SC15 | 15 | 0.28" | 14.75 | 49.00 | 430.00 |
| 31851CX | SC25 | 25 | 0.37" | 22.25 | 71.00 | 590.00 |

Stranded Hook-Up Wire – 18/20/22 AWG

300 Volts

• 80°C • PVC insulation • CSA: TR-64 • UL style: 1007
 • Temperature range: -40°C to +80°C • Sold in 100' rolls

| Part No. | Cross Ref. No. | AWG | Strands (No. x AWG) | Color | Wt. (lbs.) | 1 | 10 |
|----------|----------------|-----|---------------------|-------|------------|--------|--------|
| 126084CX | 223SBK/C | 22 | 7 x 30 | Black | 0.4 | \$3.39 | \$2.99 |
| 126033CX | 223SR/C | 22 | 7 x 30 | Red | 0.4 | 3.39 | 2.99 |
| 126076CX | 223SW/C | 22 | 7 x 30 | White | 0.4 | 3.39 | 2.99 |
| 125840CX | 203SBK/C | 20 | 10 x 30 | Black | 0.6 | 4.95 | 4.49 |
| 125794CX | 203SR/C | 20 | 10 x 30 | Red | 0.5 | 4.95 | 4.49 |
| 125831CX | 203SW/C | 20 | 10 x 30 | White | 0.5 | 4.95 | 4.49 |
| 125786CX | 183SBK/C | 18 | 16 x 30 | Black | 0.8 | 5.79 | 5.25 |
| 125735CX | 183SR/C | 18 | 16 x 30 | Red | 0.8 | 5.79 | 5.25 |
| 125751CX | 183SW/C | 18 | 16 x 30 | White | 0.8 | 5.79 | 5.25 |

Twisted Pair Cable – 24 AWG

• PVC insulation • Use for hook up wire • Stranded tinned wire (7 x 32)
 • Reduced EMI • Wt.: 100' (0.5 lbs.); 1000' (4.7 lbs.) • 80°C • 300 V

| Part No. | Cross Ref. No. | Color | 100 ft. | Part No. | Cross Ref. No. | Color | 1000 ft. |
|----------|----------------|-------------|---------|----------|----------------|-------------|----------|
| 105911CX | 224GW/C | Green/white | \$5.49 | 105806CX | 224GW/K | Green/white | \$44.95 |
| 173147CX | 224RW/C | Red/white | 5.49 | 173155CX | 224RW/K | Red/white | 44.95 |
| 173163CX | 224BW/C | Black/white | 5.49 | 173171CX | 224BW/K | Black/white | 44.95 |

Kynar™ Wire Wrap Wire – 30 AWG

• Assorted color coded insulation • Used for prototyping
 • Color coded Kynar™ (Polyvinylidene Fluoride) insulation
 • Silver plated copper (solid conductor) • UL 1423
 • Temperature: -40°C to +125°C • See pg 80 for sockets
 • Wire wrap tools, pg 189 • Passes UL VW-1 flame test

| Part No. | Color | Wt. (lbs.) | 100 ft. | Part No. | Color | Wt. (lbs.) | 1000 ft. |
|----------|--------|------------|---------|----------|--------|------------|----------|
| 22541CX | Blue | 0.1 | \$4.95 | 22550CX | Blue | 0.6 | \$29.95 |
| 22576CX | Black | 0.1 | 4.95 | 22584CX | Black | 0.6 | 29.95 |
| 22630CX | Red | 0.1 | 4.95 | 22648CX | Red | 0.6 | 29.95 |
| 22664CX | White | 0.1 | 4.95 | 22672CX | White | 0.6 | 29.95 |
| 22605CX | Green | 0.1 | 4.95 | 22613CX | Green | 0.6 | 29.95 |
| 22699CX | Yellow | 0.1 | 4.95 | 22701CX | Yellow | 0.6 | 29.95 |

Belden Coaxial Cables

Compare Belden coaxial cables with the other companies who produce them and you will discover the obvious: Belden has no equal. That's because Belden coaxial cables are time-tested for performance. Performance that guarantees outstanding value. Belden guarantees this level of performance because every cable is tested with equipment that simulates every known environmental and electrical performance condition. As a result, Belden coaxial cable can be counted on for positive, reliable, and trouble-free operation. Engineered in a wide selection of sizes and materials, with each offering the benefits needed for physical, electrical and cost-requirement applications. Cable choices include broadband, standard analog, precision video for analog and digital, and more. For our complete line of Belden products, please visit www.Jameco.com/Belden.

50Ω Transmission and Computer Cable RG8/U Type

16 AWG stranded (19x29) .058" bare copper

- 95% bare copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 81.4pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .042" • Color: black – 10

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|---------------|------------------|---------|---------|---------|
| 234254CX | 9258-100-10 | 100' reel | \$58.34 | \$54.60 | \$43.17 |
| 234256CX | 9258-500-10 | 500' reel | 216.53 | 212.10 | 198.74 |
| 234255CX | 9258-1000-10 | 1000' reel | 433.13 | 424.19 | 338.37 |
| 234258CX | 9258-U500-10 | 500' unreel box | 216.53 | 212.10 | 198.74 |
| 234257CX | 9258-U1000-10 | 1000' unreel box | 433.13 | 424.19 | 338.37 |

13 AWG stranded (7 x 21) .085" bare copper

- 97% bare copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 93.5pF/m • Nominal impedance: 52Ω
- Nominal outer diameter: .405" • Color: black – 10

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|--------------|-------------|----------|----------|---------|
| 232848CX | 8237-100-10 | 100' reel | \$115.43 | \$103.93 | \$94.02 |
| 232856CX | 8237-500-10 | 500' reel | 432.67 | 392.31 | 380.59 |
| 232864CX | 8237-1000-10 | 1000' reel | 801.73 | 717.63 | 661.56 |

11 AWG stranded (7 x 19) .108" bare copper

- 97% bare copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 85.3pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .285" • Color: black – 10

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|--------------|-------------|----------|----------|---------|
| 232750CX | 8214-100-10 | 100' reel | \$120.71 | \$108.91 | \$99.89 |
| 232768CX | 8214-500-10 | 500' reel | 523.46 | 475.85 | 436.24 |
| 232776CX | 8214-1000-10 | 1000' reel | 953.80 | 874.24 | 805.22 |

50Ω Transmission and Computer Cable RG58A/U Type

20 AWG solid .032" bare copper

- 95% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 93.5pF/m • Nominal impedance: 51.5Ω
- Nominal outer diameter: .193" • Color: black – 10

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|---------------|------------------|---------|---------|---------|
| 232872CX | 8240-100-10 | 100' reel | \$41.26 | \$36.39 | \$33.03 |
| 232881CX | 8240-500-10 | 500' reel | 139.12 | 124.97 | 113.61 |
| 232899CX | 8240-1000-10 | 1000' reel | 261.25 | 237.71 | 214.51 |
| 234175CX | 8240-U500-10 | 500' unreel box | 140.68 | 127.52 | 115.96 |
| 234174CX | 8240-U1000-10 | 1000' unreel box | 281.25 | 255.11 | 242.35 |

20 AWG stranded (19 x 33) .035" tinned copper

- 95% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 101pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .192" • Color: black – 10

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|--------------|-------------|---------|---------|---------|
| 232936CX | 8259-100-10 | 100' reel | \$43.45 | \$38.57 | \$35.32 |
| 232944CX | 8259-500-10 | 500' reel | 137.30 | 131.46 | 119.60 |
| 232952CX | 8259-1000-10 | 1000' reel | 238.95 | 215.99 | 194.49 |

20 AWG stranded (19 x 32) .037" tinned copper

- 96% tinned copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 86.9pF/m • Nominal impedance: 53.5Ω
- Nominal outer diameter: .194" • Color: black – 10

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|--------------|-------------|---------|---------|---------|
| 232813CX | 8219-100-10 | 100' reel | \$36.84 | \$34.99 | \$33.26 |
| 232821CX | 8219-500-10 | 500' reel | 159.96 | 151.55 | 143.13 |
| 232830CX | 8219-1000-10 | 1000' reel | 269.75 | 254.75 | 242.15 |

50Ω Transmission and Computer Cable RG174/U Type

26 AWG stranded (7 x 34) .019" bare copper-covered steel

- 90% tinned copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 101pF/m • Nominal impedance: 50Ω
- Nominal outer diameter: .110" • Color: black – 10

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|--------------|-------------|---------|---------|---------|
| 232784CX | 8216-100-10 | 100' reel | \$35.46 | \$32.17 | \$29.37 |
| 232792CX | 8216-500-10 | 500' reel | 123.06 | 111.60 | 102.24 |
| 232805CX | 8216-1000-10 | 1000' reel | 221.64 | 209.37 | 197.03 |

75Ω Broadband Coax CATV Cable RG6/U Type

18 AWG solid .040" bare copper-covered steel

- DuoBond® II +60% aluminum braid shield
- Gas injected foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 53.1pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .270" • Color: black – 10

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|--------------|-------------|---------|---------|---------|
| 233269CX | 9116-100-10 | 100' reel | \$21.39 | \$17.97 | \$16.23 |
| 233277CX | 9116-500-10 | 500' reel | 58.56 | 51.40 | 48.73 |
| 233285CX | 9116-1000-10 | 1000' reel | 102.56 | 92.21 | 83.00 |

18 AWG solid .040" bare copper-covered steel

- DuoBond® IV quad shield
- Gas injected foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 53.1pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .298" • Color: black – 10

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|---------------|-----------------|---------|---------|---------|
| 232733CX | 1189A-100-10 | 100' reel | \$24.61 | \$20.67 | \$18.62 |
| 233402CX | 1189A-500-10 | 500' reel | 87.14 | 76.27 | 68.68 |
| 232741CX | 1189A-1000-10 | 1000' reel | 152.58 | 137.34 | 123.60 |
| 234052CX | 1189A-U500-10 | 500' unreel box | 87.14 | 76.27 | 68.68 |

Precision Video Cable for Analog and Digital RG6 Type

18 AWG solid .040" bare copper

- DuoFoil® +95% tinned copper braid shield
- Gas injected foam HDPE insulation, PVC jacket
- Nominal capacitance: 53.1pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .275" • Color: black – 10

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|---------------|-------------|---------|---------|---------|
| 234099CX | 1694A-100-10 | 100' reel | \$67.26 | \$63.76 | \$60.60 |
| 234155CX | 1694A-500-10 | 500' reel | 225.99 | 205.15 | 186.29 |
| 234154CX | 1694A-1000-10 | 1000' reel | 483.63 | 443.31 | 391.29 |

Direct Broadcast Satellite RG6 Type Cable

18 AWG solid .040" bare copper

- DuoBond® II +60% aluminum braid
- Gas injected foam polyethylene insulation, PVC jacket
- Nominal capacitance: 16.2pF/m
- Nominal impedance: 75Ω
- Nominal outer diameter: .270"

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|----------------|-------------|---------|---------|---------|
| 234156CX | 1829AC-100-10 | 100' reel | \$12.23 | \$11.65 | \$11.04 |
| 234177CX | 1829AC-500-10 | 500' reel | 58.66 | 55.56 | 52.86 |
| 234157CX | 1829AC-1000-10 | 1000' reel | 111.53 | 105.94 | 100.70 |

Composite Data, Audio, Video, Security and Control Cable

Two RG6 18 AWG solid bare copper conductor and two 4-pair UTP 24 AWG solid bare copper conductor

- Banana Peel™ jacketless cables
- Gas injected FPR insulation coax cable, polyolefin insulation CAT5e cable and F-R PVC jackets
- Component nominal outer diameter: .200"

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|-------------|-------------|----------|----------|----------|
| 234163CX | 7913S-500 | 500' reel | \$290.69 | \$276.18 | \$262.33 |
| 234162CX | 7913S-1000 | 1000' reel | 553.66 | 525.96 | 499.72 |

Belden Coaxial Cables (Continued)**75Ω Standard Analog Video Cable RG59/U Type****23 AWG solid .023" bare copper**

- 95% bare copper braid shield
- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 67.3pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .242" • Color: black – 10



| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|--------------|------------------|---------|---------|---------|
| 232901CX | 8241-100-10 | 100' reel | \$44.55 | \$40.25 | \$36.62 |
| 232910CX | 8241-500-10 | 500' reel | 118.81 | 107.71 | 97.91 |
| 232928CX | 8241-1000-10 | 1000' reel | 233.26 | 211.92 | 192.49 |

22 AWG stranded (7 x 30) .030" bare copper

- 95% bare copper braid shield
- Foam polyethylene insulation and black PVC jacket
- Nominal capacitance: 56.7pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .241" • Color: black – 10



| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|---------------|------------------------|---------|---------|---------|
| 232653CX | 9259-100-10 | 100' reel | \$50.25 | \$40.63 | \$39.12 |
| 232661CX | 9259-500-10 | 500' reel | 131.65 | 107.70 | 102.36 |
| 232670CX | 9259-1000-10 | 1000' reel | 264.56 | 216.71 | 204.74 |
| 234070CX | 9259-U500-10 | 500' unreel box | 172.60 | 156.49 | 151.17 |
| 234069CX | 9259-U1000-10 | 1000' unreel box | 327.95 | 297.30 | 287.19 |

RG59 Type Security Coaxial Cable**20 AWG solid bare copper conductor**

- 95% bare copper braid shield
- Nominal impedance: 75Ω
- Foam polyolefin insulation and black UV resistant PVC jacket
- Impregnated with CoreGuard® flame retardant flooding compound
- Shielded or flooded for use in underground ducts
- Surveillance and CCTV applications • Color: black – 10



| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|----------------|------------------|---------|---------|---------|
| 234158CX | 543945-100-10 | 100' reel | \$13.83 | \$13.18 | \$12.51 |
| 234160CX | 543945-500-10 | 500' reel | 64.94 | 61.98 | 58.92 |
| 234159CX | 543945-1000-10 | 1000' reel | 129.61 | 103.70 | 97.73 |

Standard Analog Video Cable 75Ω Miniature Coax**27 AWG stranded (7x35) .017" bare copper-covered steel**

- Polyethylene insulation and black PVC jacket
- Nominal capacitance: 67.3pF/m
- Nominal impedance: 75Ω
- Nominal outer diameter: .100" • Color: black – 10



| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|---------------|------------------------|----------|----------|----------|
| 234173CX | 8218-U500-10 | 500' unreel box | \$179.71 | \$162.83 | \$148.01 |
| 234172CX | 8218-U1000-10 | 1000' unreel box | 359.24 | 325.95 | 309.66 |

Broadband Coax (Headend/Video Cables)**20 AWG solid .031" bare copper**

- 98% tinned copper double braid shield
- Polyethylene insulation and jacket
- Nominal capacitance 68.9pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .305" • Color: black – 10



| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|--------------|------------------|---------|---------|---------|
| 232961CX | 8281-100-10 | 100' reel | \$96.23 | \$80.49 | \$72.44 |
| 232979CX | 8281-500-10 | 500' reel | 373.83 | 339.21 | 305.29 |
| 232987CX | 8281-1000-10 | 1000' reel | 679.79 | 623.13 | 575.19 |

20 AWG solid .032" solid bare copper

- Duofoil® +95% tinned copper braid shield
- Gas injected foam HDPE insulation and PVC jacket
- Nominal capacitance: 53.5pF/m • Nominal impedance: 75Ω
- Nominal outer diameter: .234" • Color: black – 10



| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|---------------|------------------|---------|---------|---------|
| 234086CX | 1505A-100-10 | 100' reel | \$51.38 | \$48.86 | \$46.39 |
| 234088CX | 1505A-500-10 | 500' reel | 210.95 | 184.73 | 174.84 |
| 234087CX | 1505A-1000-10 | 1000' reel | 399.10 | 362.14 | 342.82 |

Belden Speaker Cables

These speaker cables are used to connect receivers or power amplifiers to speakers and are also used for the internal wiring of the speakers. All Belden speaker cables utilize only high-conductivity copper produced by a process called Electrolytic Tough Pitch (ETP). This refining process produces a conductor that is 99.95% pure copper resulting in high-conductivity per ASTM B115.

Electrolytic Tough Pitch (ETP) High Conductivity Copper Speaker Cables

- 2-conductor stranded
- ETP high conductivity copper
- Parallel (1) tinned (1) bare
- PVC insulation • Clear PVC jacket – 368

**18 AWG Stranded (16 x 30)**

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|----------------|------------------------|---------|---------|---------|
| 232573CX | 9708-100-368 | 100' reel | \$32.59 | \$29.48 | \$26.79 |
| 232581CX | 9708-500-368 | 500' reel | 119.86 | 113.82 | 107.51 |
| 232590CX | 9708-1000-368 | 1000' reel | 227.62 | 214.99 | 202.33 |
| 234153CX | 9708-U500-368 | 500' unreel box | 119.50 | 113.22 | 106.98 |
| 234080CX | 9708-U1000-368 | 1000' unreel box | 227.62 | 213.79 | 202.33 |

14 AWG Stranded (19 x 27)

| | | | | | |
|----------|---------------|------------------|---------|---------|---------|
| 232602CX | 9717-100-368 | 100' reel | \$65.51 | \$55.09 | \$49.45 |
| 233429CX | 9717-500-368 | 500' reel | 255.71 | 242.25 | 218.04 |
| 232611CX | 9717-1000-368 | 1000' reel | 459.27 | 433.66 | 390.41 |

12 AWG Stranded (65 x 30)

| | | | | | |
|----------|---------------|------------------|----------|----------|----------|
| 232629CX | 9718-100-368 | 100' reel | \$153.08 | \$128.60 | \$115.73 |
| 232637CX | 9718-500-368 | 500' reel | 405.25 | 358.42 | 310.77 |
| 232645CX | 9718-1000-368 | 1000' reel | 813.00 | 728.00 | 664.72 |

Belden Hook-up Wire**UL AWM Style 1007**

Belden hook-up and lead wire products are manufactured in a variety of materials, sizes, and designs to meet rigid industry and government specifications. Used in a wealth of applications including inter-connection circuits, internal wiring of computer and data processing equipment, appliances, and automotive. AWM, or Appliance Wiring Material, is Underwriter Laboratories' recognized covering of insulated wires and cables intended for internal wiring of appliances and equipment.

- Tinned copper • PVC insulated
- Rated 105°C, 300V; 600V peak for electronic circuits and electrical equipment
- Increments of 100' reels



Use the color code chart below to replace the "xx" when ordering

| | | | | |
|-------------|-----------|-------------|-------------|----------------|
| 01 – Brown | 02 – Red | 03 – Orange | 04 – Yellow | 05 – Green |
| 07 – Violet | 08 – Gray | 09 – White | 10 – Black | 13 – Dark blue |

e.g. **234601CX** – **2346** is the Jameco designation for 28 AWG stranded wire and **01** is for color brown

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|-------------|---------------------------------|---------|---------|--------|
| 2346xxCX | 9928-100-xx | 28 AWG (7 x 36) stranded | \$11.46 | \$10.37 | \$9.45 |
| 2345xxCX | 9926-100-xx | 26 AWG (7 x 34) stranded | 12.29 | 11.13 | 10.10 |
| 2344xxCX | 9923-100-xx | 24 AWG (7 x 32) stranded | 12.88 | 11.72 | 10.61 |
| 2343xxCX | 9921-100-xx | 22 AWG (7 x 30) stranded | 14.77 | 13.51 | 12.26 |
| 2342xxCX | 9919-100-xx | 20 AWG (7 x 28) stranded | 18.26 | 16.59 | 15.10 |
| 2341xxCX | 9918-100-xx | 18 AWG (16 x 30) stranded | 20.40 | 19.20 | 16.79 |
| 2340xxCX | 9916-100-xx | 16 AWG (26 x 30) stranded | 29.35 | 26.70 | 24.25 |

Bus Bar Hook Up Wire

Made in accordance with the performance requirements of Federal Specifications QQ-W343G.

- Solid tinned copper, single conductor
- Nominal outer diameter: 24 AWG – .021"; 22 AWG – .026"; 20 AWG – .033"

| Part No. | Product No. | Description | 1 | 5 | 10 |
|----------|-------------|--------------------------|---------|--------|--------|
| 234168CX | 8022-100 | 24 AWG, 100' reel | \$10.68 | \$9.68 | \$8.79 |
| 234169CX | 8022-1000 | 24 AWG, 1000' reel | 57.12 | 46.52 | 42.96 |
| 234166CX | 8021-100 | 22 AWG, 100' reel | 11.77 | 9.43 | 8.54 |
| 234167CX | 8021-1000 | 22 AWG, 1000' reel | 72.14 | 65.53 | 59.52 |
| 234164CX | 8020-100 | 20 AWG, 100' reel | 13.56 | 12.34 | 11.22 |
| 234165CX | 8020-1000 | 20 AWG, 1000' reel | 93.29 | 80.16 | 71.76 |

Belden Paired Cables

Belden cable products are manufactured in a variety of gauge sizes, dimensions, insulation materials, shielding configurations, and jacketing materials including PVC, PLENUM and High-Temperature versions to meet the technical requirements of many different types of systems. Paired cables allow balanced signal transmission, which results in lower crosstalk through common mode rejection. Due to the improved noise immunity of twisted pairs, they generally permit higher data speeds than other multi-conductor cables. For our complete line of Belden products, please visit www.Jameco.com/Belden.

• Chrome PVC jacket • Tinned copper • Twisted pairs • Tinned copper drain wire • Overall 100% BELDFOIL® shield (for shielded cables)

High-Temperature Control, Instrumentation Cables and Computer Cables

24 AWG stranded (7 x 32) shielded with 24 AWG stranded TC drain wire

- Semi-rigid PVC insulation
- Nominal DCR: 24Ω/m
- Nominal impedance: 75Ω
- Color: chrome – 60



| 9502 Series | | | 9503 Series | | | 9504 Series | | |
|-------------|---------------|--------------|-----------------------|---------|---------|-------------|--|--|
| Part No. | Product No. | No. of Pairs | Description | 1 | 5 | 10 | | |
| 232709CX | 9501-100-60 | 1 | 100' reel | \$13.00 | \$12.04 | \$10.92 | | |
| 232717CX | 9501-500-60 | 1 | 500' reel | 61.34 | 57.95 | 54.60 | | |
| 232725CX | 9501-1000-60 | 1 | 1000' reel | 121.42 | 114.22 | 107.75 | | |
| 234073CX | 9501-U500-60 | 1 | 500' unreel box | 64.98 | 61.52 | 58.17 | | |
| 234072CX | 9501-U1000-60 | 1 | 1000' unreel box .. | 123.10 | 116.22 | 109.49 | | |
| 232451CX | 9502-100-60 | 2 | 100' reel | 19.99 | 18.99 | 17.99 | | |
| 232469CX | 9502-500-60 | 2 | 500' reel | 99.99 | 89.99 | 79.99 | | |
| 232477CX | 9502-1000-60 | 2 | 1000' reel | 184.99 | 169.99 | 159.99 | | |
| 234075CX | 9502-U500-60 | 2 | 500' unreel box .. | 99.99 | 89.99 | 79.99 | | |
| 234074CX | 9502-U1000-60 | 2 | 1000' unreel box .. | 194.48 | 181.38 | 173.02 | | |
| 232485CX | 9503-100-60 | 3 | 100' reel | 25.70 | 23.77 | 21.54 | | |
| 232493CX | 9503-500-60 | 3 | 500' reel | 114.75 | 108.69 | 102.65 | | |
| 232506CX | 9503-1000-60 | 3 | 1000' reel | 253.22 | 239.04 | 226.90 | | |
| 234077CX | 9503-U500-60 | 3 | 500' unreel box .. | 130.19 | 123.31 | 116.46 | | |
| 234076CX | 9503-U1000-60 | 3 | 1000' unreel box .. | 233.19 | 210.69 | 199.99 | | |
| 232514CX | 9504-100-60 | 4 | 100' reel | 32.07 | 26.29 | 24.09 | | |
| 232522CX | 9504-500-60 | 4 | 500' reel | 159.12 | 150.73 | 142.39 | | |
| 232531CX | 9504-1000-60 | 4 | 1000' reel | 293.47 | 239.85 | 226.74 | | |
| 232549CX | 9505-100-60 | 5 | 100' reel | 35.94 | 29.33 | 26.98 | | |
| 232557CX | 9505-500-60 | 5 | 500' reel | 178.21 | 168.80 | 159.41 | | |
| 232565CX | 9505-1000-60 | 5 | 1000' reel | 347.36 | 327.20 | 310.84 | | |
| 234078CX | 9505-U500-60 | 5 | 500' unreel box | 177.67 | 168.29 | 158.93 | | |
| 234079CX | 9505-U1000-60 | 5 | 1000' unreel box | 344.67 | 325.52 | 309.24 | | |

Low Capacitance Computer Cables

24 AWG stranded (7 x 32) shielded with 24 AWG stranded TC drain wire

- Datalene® insulation, chrome PVC jacket
- Nominal DCR: 24Ω/m
- Nominal impedance: 100Ω
- Color: chrome – 60

| Part No. | Product No. | No. of Pairs | Description | 1 | 5 | 10 |
|----------|---------------|--------------|------------------|---------|---------|---------|
| 234178CX | 1419A-100-60 | 2 | 100' reel | \$20.14 | \$18.46 | \$16.67 |
| 234085CX | 1419A-500-60 | 2 | 500' reel | 95.78 | 87.75 | 79.85 |
| 234084CX | 1419A-1000-60 | 2 | 1000' reel | 147.49 | 134.95 | 122.95 |

Audio, Control, and Instrumentation Cables Non-Plenum

22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire

- Polypropylene insulation
- Paper wrap
- Black PVC jacket
- Nominal capacitance: 111pF/m
- Nominal outer diameter: .138" • Color: black – 10

| Part No. | Product No. | No. of Pairs | Description | 1 | 5 | 10 |
|----------|---------------|--------------|-----------------------|---------|---------|---------|
| 233111CX | 8451-100-10 | 1 | 100' reel | \$19.44 | \$17.68 | \$16.08 |
| 233120CX | 8451-500-10 | 1 | 500' reel | 86.55 | 78.55 | 71.38 |
| 233138CX | 8451-1000-10 | 1 | 1000' reel | 135.99 | 124.65 | 115.15 |
| 234062CX | 8451-U500-10 | 1 | 500' unreel box | 88.61 | 78.92 | 72.86 |
| 234061CX | 8451-U1000-10 | 1 | 1000' unreel box .. | 174.95 | 158.76 | 144.20 |

Audio, Control, and Instrumentation Cables Non-Plenum (Cont'd)

22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire

- Polypropylene insulation
- PVC jacket
- Nominal capacitance: 111pF/m
- Nominal outer diameter: .135"
- Color: gray – 08

| Part No. | Product No. | No. of Pairs | Description | 1 | 5 | 10 |
|----------|---------------|--------------|------------------|---------|---------|---------|
| 232688CX | 9451-100-08 | 1 | 100' reel | \$23.93 | \$22.53 | \$20.97 |
| 232696CX | 9451-500-08 | 1 | 500' reel | 90.29 | 79.09 | 71.19 |
| 233411CX | 9451-T1000-08 | 1 | 1000' reel | 144.77 | 131.45 | 123.09 |

22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire

- Polyethylene insulation and chrome PVC jacket
- Nominal capacitance: 79pF/m
- Nominal outer diameter: .175"
- Color: chrome – 60

| Part No. | Product No. | No. of Pairs | Description | 1 | 5 | 10 |
|----------|---------------|--------------|-----------------------|---------|---------|---------|
| 234190CX | 8761-500-60 | 1 | 500' reel | \$95.57 | \$86.69 | \$78.89 |
| 234189CX | 8761-1000-60 | 1 | 1000' reel | 173.74 | 159.25 | 147.65 |
| 234192CX | 8761-U500-60 | 1 | 500' unreel box | 95.57 | 86.69 | 78.89 |
| 234191CX | 8761-U1000-60 | 1 | 1000' unreel box .. | 148.56 | 137.39 | 135.16 |

22 AWG stranded (7 x 30) shielded with 24 AWG stranded TC drain wire

- Polypropylene insulation
- Nominal capacitance: 115pF/m
- Nominal outer diameter: .168"
- Color: chrome – 60

| Part No. | Product No. | No. of Pairs | Description | 1 | 5 | 10 |
|----------|---------------|--------------|-----------------------|---------|---------|---------|
| 234179CX | 8723-100-60 | 2 | 100' reel | \$21.96 | \$19.93 | \$18.13 |
| 234181CX | 8723-500-60 | 2 | 500' reel | 95.94 | 86.12 | 79.42 |
| 234180CX | 8723-1000-60 | 2 | 1000' reel | 200.07 | 183.32 | 169.19 |
| 234183CX | 8723-U500-60 | 2 | 500' unreel box | 87.56 | 82.77 | 77.98 |
| 234182CX | 8723-U1000-60 | 2 | 1000' unreel box .. | 169.49 | 139.95 | 132.95 |

20 AWG stranded (7 x 28) unshielded

- Chrome PVC jacket
- Color: chrome – 60

| Part No. | Product No. | No. of Pairs | Description | 1 | 5 | 10 |
|----------|---------------|--------------|-----------------------|---------|---------|---------|
| 234171CX | 8205-U500-60 | 1 | 500' unreel box | \$63.49 | \$53.04 | \$51.96 |
| 234170CX | 8205-U1000-60 | 1 | 1000' unreel box .. | 104.49 | 102.66 | 101.70 |

20 AWG stranded (7 x 28) shielded with 22 AWG stranded TC drain wire

- Semi-rigid PVC insulation and overall chrome PVC jacket
- Nominal capacitance: 180pF/m
- Nominal outer diameter: .300"
- Color: chrome – 60

| Part No. | Product No. | No. of Pairs | Description | 1 | 5 | 10 |
|----------|--------------|--------------|-----------------------|---------|---------|---------|
| 234259CX | 9402-100-60 | 2 | 100' reel | \$59.12 | \$56.76 | \$53.21 |
| 234261CX | 9402-U500-60 | 2 | 500' unreel box | 236.53 | 227.96 | 212.87 |
| 234260CX | 9402-1000-60 | 2 | 1000' reel | 473.06 | 455.91 | 432.85 |

18 AWG stranded (16 x 30) shielded with 20 AWG stranded TC drain wire

- Tinned copper, twisted pair
- Polyethylene insulation with chrome PVC jacket
- Nominal capacitance: 79pF/m
- Nominal outer diameter: .222"
- Color: chrome – 60

| Part No. | Product No. | No. of Pairs | Description | 1 | 5 | 10 |
|----------|---------------|--------------|-----------------------|---------|---------|---------|
| 234184CX | 8760-100-60 | 1 | 100' reel | \$43.45 | \$36.46 | \$34.80 |
| 234186CX | 8760-500-60 | 1 | 500' reel | 120.27 | 109.09 | 98.39 |
| 234185CX | 8760-1000-60 | 1 | 1000' reel | 218.55 | 200.45 | 184.92 |
| 234188CX | 8760-U500-60 | 1 | 500' unreel box | 120.22 | 109.27 | 100.49 |
| 234187CX | 8760-U1000-60 | 1 | 1000' unreel box .. | 225.72 | 199.39 | 184.06 |

Belden Paired Line Level Analog Audio Cable

20 AWG stranded (7 x 28) with 20 AWG stranded TC drain wire

- Polyethylene insulation with chrome PVC jacket
- Nominal capacitance: 89pF/m
- Nominal outer diameter: .204"
- Color: chrome – 60



| Part No. | Product No. | No. of Pairs | Description | 1 | 5 | 10 |
|----------|---------------|--------------|-----------------------|---------|---------|---------|
| 234194CX | 8762-100-60 | 1 | 100' reel | \$23.95 | \$21.70 | \$19.71 |
| 234196CX | 8762-500-60 | 1 | 500' reel | 79.99 | 77.55 | 74.95 |
| 234195CX | 8762-1000-60 | 1 | 1000' reel | 210.03 | 198.39 | 186.70 |
| 234198CX | 8762-U500-60 | 1 | 500' unreel box | 99.19 | 94.29 | 89.49 |
| 234197CX | 8762-U1000-60 | 1 | 1000' unreel box .. | 187.91 | 175.78 | 169.72 |

16 AWG stranded (19 x 29) shielded with 18 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 75pF/m
- Nominal outer diameter: .313"
- Color: chrome – 60



| Part No. | Product No. | No. of Pairs | Description | 1 | 5 | 10 |
|----------|---------------|--------------|-----------------------|---------|---------|---------|
| 233146CX | 8719-100-60 | 1 | 100' reel | \$62.86 | \$52.77 | \$47.48 |
| 233154CX | 8719-500-60 | 1 | 500' reel | 198.65 | 180.24 | 163.88 |
| 233162CX | 8719-1000-60 | 1 | 1000' reel | 362.09 | 331.16 | 305.62 |
| 234064CX | 8719-U500-60 | 1 | 500' unreel box | 202.83 | 184.06 | 167.08 |
| 234063CX | 8719-U1000-60 | 1 | 1000' unreel box .. | 362.09 | 331.16 | 305.62 |

14 AWG stranded (19 x 27) shielded with 16 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 79pF/m
- Nominal outer diameter: .355"
- Color: chrome – 60



| Part No. | Product No. | No. of Pairs | Description | 1 | 5 | 10 |
|----------|--------------|--------------|-----------------------|---------|---------|---------|
| 233171CX | 8720-100-60 | 1 | 100' reel | \$61.38 | \$51.52 | \$46.38 |
| 233189CX | 8720-500-60 | 1 | 500' reel | 237.17 | 215.15 | 195.46 |
| 233197CX | 8720-1000-60 | 1 | 1000' reel | 431.14 | 395.33 | 364.81 |
| 234065CX | 8720-U500-60 | 1 | 500' unreel box | 237.17 | 215.15 | 195.46 |

Belden Paired DataTwist® Category 5e UTP Cable

TIA/EIA – 568-B.2, unbonded-pair cable

- 4 pair unshielded
- 24 AWG solid
- Maximum DCR per 100m – 9.38Ω
- Input impedance: 100Ω



1585A series:

- Plenum, FEP Teflon® insulation, Flamarrest® jacket
- Nominal outer diameter: .200"

1583A series:

- Non-plenum, polyolefin insulation, PVC jacket,
- Nominal outer diameter: .214"

| Part No. | Product No. | Color | Description | 1 | 5 | 10 |
|----------|-----------------|---------|------------------------|---------|---------|---------|
| 234092CX | 1585A-100-877 | Natural | 100' reel | \$32.19 | \$30.61 | \$29.07 |
| 234094CX | 1585A-500-877 | Natural | 500' reel | 153.04 | 145.61 | 138.31 |
| 234093CX | 1585A-1000-877 | Natural | 1000' reel | 292.79 | 278.19 | 266.75 |
| 234095CX | 1585A-U1000-877 | Natural | 1000' unreel box .. | 206.83 | 170.32 | 161.80 |
| 234096CX | 1585A-U100-D15 | Blue | 100' unreel box | 32.24 | 30.66 | 29.15 |
| 234098CX | 1585A-U500-D15 | Blue | 500' unreel box | 153.69 | 146.03 | 138.72 |
| 234097CX | 1585A-U1000-D15 | Blue | 1000' unreel box .. | 292.79 | 278.14 | 264.27 |
| 234089CX | 1583A-100-06 | Blue | 100' reel | 9.93 | 9.03 | 8.09 |
| 234176CX | 1583A-500-06 | Blue | 500' reel | 47.32 | 42.32 | 38.99 |
| 234090CX | 1583A-1000-06 | Blue | 1000' reel | 90.08 | 81.76 | 74.26 |
| 234091CX | 1583A-U1000-06 | Blue | 1000' unreel box | 90.08 | 81.76 | 74.26 |

Belden Multi-Conductor Audio, Control, and Instrumentation Cables Non-Plenum

22 AWG stranded (7 x 30) shielded with 22 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 75pF/m
- Nominal outer diameter: .199"
- Color: chrome – 60



| Part No. | Product No. | Conductors | Description | 1 | 5 | 10 |
|----------|---------------|------------|-----------------------|---------|---------|---------|
| 233234CX | 8771-100-60 | 3 | 100' reel | \$36.36 | \$30.55 | \$27.49 |
| 233242CX | 8771-500-60 | 3 | 500' reel | 99.53 | 94.53 | 89.10 |
| 233251CX | 8771-1000-60 | 3 | 1000' reel | 193.82 | 182.80 | 172.09 |
| 234067CX | 8771-U500-60 | 3 | 500' unreel box | 99.53 | 94.35 | 89.10 |
| 234066CX | 8771-U1000-60 | 3 | 1000' unreel box .. | 193.82 | 182.80 | 172.09 |

22 AWG stranded (7 x 30) unshielded

- PVC insulation
- Color: chrome – 60



| Part No. | Product No. | Conductors | Description | 1 | 5 | 10 |
|----------|---------------|------------|------------------------|---------|---------|--------|
| 232995CX | 8442-100-60 | 2 | 100' reel | \$11.21 | \$10.10 | \$9.22 |
| 233007CX | 8442-500-60 | 2 | 500' reel | 51.62 | 48.91 | 46.21 |
| 233015CX | 8442-1000-60 | 2 | 1000' reel | 99.00 | 94.80 | 89.21 |
| 234054CX | 8442-U500-60 | 2 | 500' unreel box | 52.73 | 49.97 | 47.13 |
| 234053CX | 8442-U1000-60 | 2 | 1000' unreel box | 99.00 | 94.80 | 89.21 |
| 233023CX | 8443-100-60 | 3 | 100' reel | 15.69 | 14.23 | 12.96 |
| 233031CX | 8443-500-60 | 3 | 500' reel | 72.78 | 68.96 | 65.14 |
| 233040CX | 8443-1000-60 | 3 | 1000' reel | 141.46 | 133.63 | 125.75 |
| 234056CX | 8443-U500-60 | 3 | 500' unreel box | 74.29 | 70.40 | 66.46 |
| 234055CX | 8443-U1000-60 | 3 | 1000' unreel box .. | 141.46 | 133.63 | 125.75 |
| 233058CX | 8444-100-60 | 4 | 100' reel | 20.10 | 18.22 | 16.58 |
| 233066CX | 8444-500-60 | 4 | 500' reel | 92.98 | 88.06 | 83.19 |
| 233074CX | 8444-1000-60 | 4 | 1000' reel | 180.79 | 170.72 | 160.71 |
| 234058CX | 8444-U500-60 | 4 | 500' unreel box | 92.98 | 88.06 | 83.19 |
| 234057CX | 8444-U1000-60 | 4 | 1000' unreel box .. | 180.79 | 170.72 | 160.71 |
| 233082CX | 8445-100-60 | 5 | 100' reel | 25.11 | 22.76 | 20.69 |
| 233091CX | 8445-500-60 | 5 | 500' reel | 124.79 | 113.45 | 103.97 |
| 233103CX | 8445-1000-60 | 5 | 1000' reel | 226.06 | 213.48 | 200.96 |
| 234060CX | 8445-U500-60 | 5 | 500' unreel box | 128.62 | 104.86 | 96.63 |
| 234059CX | 8445-U1000-60 | 5 | 1000' unreel box .. | 256.13 | 232.37 | 210.02 |

20 AWG stranded (7 x 28) shielded with 20 AWG stranded TC drain wire

- Polyethylene insulation and chrome PVC jacket
- Nominal capacitance: 89pF/m
- Nominal outer diameter: .218"
- Color: chrome – 60



| Part No. | Product No. | Conductors | Description | 1 | 5 | 10 |
|----------|---------------|------------|---------------------|----------|----------|---------|
| 234253CX | 8772-U500-60 | 3 | 500' unreel box .. | \$110.58 | \$104.44 | \$98.29 |
| 234252CX | 8772-U1000-60 | 3 | 1000' unreel box .. | 245.75 | 226.04 | 203.48 |

18 AWG stranded (16 x 30) shielded with 20 AWG stranded TC drain wire

- Polyethylene insulation
- Nominal capacitance: 79pF/m
- Nominal outer diameter: .246"
- Color: chrome – 60



| Part No. | Product No. | Conductors | Description | 1 | 5 | 10 |
|----------|---------------|------------|-----------------------|---------|---------|---------|
| 233200CX | 8770-100-60 | 3 | 100' reel | \$61.49 | \$51.63 | \$38.08 |
| 233218CX | 8770-500-60 | 3 | 500' reel | 165.65 | 150.32 | 136.56 |
| 233226CX | 8770-1000-60 | 3 | 1000' reel | 306.87 | 290.73 | 265.35 |
| 234083CX | 8770-U500-60 | 3 | 500' unreel box | 169.10 | 153.45 | 139.47 |
| 234082CX | 8770-U1000-60 | 3 | 1000' unreel box .. | 313.51 | 297.00 | 282.13 |

Belden® Cable Now at Jameco!

Professionals don't take chances when it comes to cables, so here's great news. Now you can get your Belden cables from Jameco. The undisputed leader in quality cabling, Belden is the cable of choice for critical applications like Internet, intranet and communication network backbones. We offer the Belden cable of your choice in reels ranging from 100' to 1,000'. You'll find a wide variety of cable types, stranded and solid core, single and multi-conductor, coax, and more. And you'll find them all at very competitive prices, with our fast, efficient service at no extra charge.

Call for OEM pricing

Nylon Cable Ties

Standard

- Cable ties made from UL approved Nylon 66
- Temperature range: -40°C to +85°C
- Flammability rating: UL 94V-2
- Color: clear (except P/N 182676CX)
- Sold in increments of 100 or 1000

| Part No. | Tensile Strength (lbs.) | Dimensions (L" x W") | 100 | 1000 |
|----------|-------------------------|----------------------|------|------|
| 70560CX | 18 | 3.1 x 0.10 | .025 | .015 |
| 126543CX | 18 | 4.0 x 0.10 | .02 | .014 |
| 182676CX | 18* | 4.75 x 0.13 | .043 | .025 |
| 182650CX | 18 | 5.5 x 0.13 | .035 | .025 |
| 139150CX | 18 | 8.0 x 0.10 | .06 | .04 |
| 182668CX | 18 | 8.0 x 0.13 | .075 | .05 |
| 182684CX | 18 | 8.0 x 0.18 | .036 | .033 |
| 70906CX | 40 | 5.8 x 0.10 | .035 | .029 |
| 190756CX | 40 | 10.0 x 0.14 | .12 | .086 |
| 190772CX | 40 | 11.0 x 0.19 | .10 | .065 |
| 190764CX | 40 | 13.0 x 0.14 | .10 | .075 |

* Black

Weather Resistant

- Contain Carbonate A for greater resistance to ultra violet rays in outdoor use
- Color: black
- Sold in increments of 100 or 1000

| Part No. | Tensile Strength (lbs.) | Dimensions (L" x W") | 100 | 1000 |
|----------|-------------------------|----------------------|------|------|
| 139125CX | 18 | 3.0 x 0.90 | .045 | .029 |
| 104141CX | 18 | 4.0 x 0.10 | .044 | .029 |
| 104133CX | 40 | 5.8 x 0.10 | .047 | .031 |
| 190781CX | 40 | 8.0 x 0.13 | .085 | .065 |
| 190799CX | 40 | 10.0 x 0.14 | .10 | .09 |
| 190801CX | 40 | 13.0 x 0.14 | .113 | .088 |

Cable Tie Assortments

- Tensile strength: 18-50 lbs.
- 145701CX: 1000 pcs. (4"L); 10 colors
- 150412CX: 500 pcs. (4"L); 300 pcs. (8"L); 50 pcs. (11"L), 5 colors

| Part No. | Weight (lbs.) | 1 | 10 | 50 |
|----------|---------------|--------|--------|--------|
| 145701CX | 0.7 | \$9.49 | \$8.49 | \$7.39 |
| 150412CX | 1.7 | 13.95 | 11.49 | 9.95 |

Cable Tie Tool

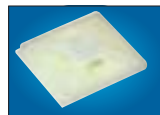
- 2.5 - 5mm width (of cable)
- Tension adjustable
- Twist to cut surplus tie end
- Spring return action
- Plastic

| Part No. | Description | 1 | 10 | 100 |
|----------|----------------|---------|---------|---------|
| 182297CX | Cable tie tool | \$15.95 | \$13.95 | \$12.65 |

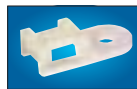
All New 3M Products see Page 4.

Cable Tie Mounts and Cable Clamps

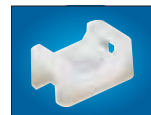
- Tie mount and screw tab cable clamps
- Material: UL approved nylon 66, 94V-2
- Sold in increments of 10, 100 or 1000



182941CX/171213CX
71407CX/71394CX
71386CX



70594CX



182300CX/173761CX



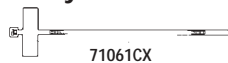
182318CX/182376CX
182334CX/182342CX



173711CX/173729CX
173737CX/134754CX
173753CX

| Part No. | Mfr. Cross Reference No. | Description | 10 | 100 | 1000 |
|----------|--------------------------|--|------|------|------|
| 182941CX | 0505HC-101S | 4-way cable tie mount, self adhesive, .75"D | .07 | .055 | .042 |
| 171213CX | HC-100 | 4-way cable tie mount, self adhesive, use w/ 0.1"W max., 0.5" square | .15 | .13 | .094 |
| 71407CX | HC-101 | 4-way cable tie mount, self adhesive, use w/ 0.1"W max., 0.9" square | .18 | .16 | .13 |
| 71394CX | HC-102 | 4-way cable tie mount, self adhesive, use w/ 0.2"W max., 1.1" square | .23 | .19 | .14 |
| 71386CX | HC-103 | 4-way cable tie mount, self adhesive, use w/ 0.4"W max., 1.1" square | .25 | .19 | .13 |
| 70594CX | HC-0 | 4-way cable tie, screw type, use w/ 0.2"W max., 0.8"L x 0.4"W | .15 | .09 | .05 |
| 182300CX | 0510HC-2 | Cable tie mount, 1/4" screw hole, 0.5"D | .17 | .15 | .14 |
| 173761CX | HC-1 | Cable tie, saddle type, 0.6"L x 0.4"W | .15 | .125 | .075 |
| 182318CX | 0519ATC-17 | 2-way adjustable tie mount, #6 flat head screw, 0.7"D | .26 | .24 | .22 |
| 182376CX | 0519ATC-22 | 2-way adjustable tie mount, #6 flat head screw, 0.9"D | .17 | .16 | .14 |
| 182334CX | 0520FC-1 | Cable tie mount, self adhesive, 0.1"D | .17 | .15 | .12 |
| 182342CX | 0520FC-2 | Cable tie mount, self adhesive, 0.2"D | .15 | .11 | .08 |
| 173711CX | UC0 | Cable clamp for 1/8" cable | .08 | .027 | .018 |
| 173729CX | UC0.5 | Cable clamp for 3/16" cable | .035 | .032 | .019 |
| 173737CX | UC1 | Cable clamp for 1/4" cable | .14 | .09 | .063 |
| 134754CX | B0375 | Cable clamp for 3/8" cable | .08 | .029 | .018 |
| 173753CX | UC3 | Cable clamp for 1/2" cable | .09 | .033 | .025 |

Nylon Cable ID Ties and Tabs



71061CX



135175CX

71061CX: Clear ID tab (0.98" x 0.31")

135175CX: Nylon cable tie ID marker

- Sold in increments of 10, 100 or 1000

| Part No. | Size | 10 | 100 | 1000 |
|----------|-----------------------|------|-----|------|
| 71061CX | 4.0"L x 0.1"W | .085 | .08 | .072 |
| 135175CX | 2.0"L x 0.8"W x .02"T | .22 | .11 | .08 |

Cable Sleeve

Clean Cut Expandable Sleeving

- Flame resistant
- Applications: protecting wires, cables and hoses
- Operating temp.: -70°C to 125°C
- Sold in spools of 25'

| Part No. | Product No. | Actual/Expanded Dia. | 1 | 10 |
|----------|-------------|----------------------|---------|---------|
| 162157CX | CCPT2X | .250"/.440" | \$15.95 | \$14.95 |
| 162165CX | CCPT3X | .500"/.750" | 17.95 | 14.49 |

3M Vinyl Electrical Tape

5-pack Multi-Colored

- 3M #35 vinyl electrical color coding tape is used in phase identification, color coding leads, piping systems and for marking safety areas. UL Listed, CSA Certified, and flame-retardant. Excellent all-weather performance in cold to 0°F (-18°C) or hot to 220°F (105°C). 5 rolls to a pack with colors blue, green, red, yellow, and white.
- 1/2" x 20'

| Part No. | Product No. | 1 | 5 | 10 | 25 |
|----------|-------------|--------|--------|--------|--------|
| 287806CX | 3M 10457 | \$7.95 | \$6.72 | \$6.10 | \$5.36 |

Pressure Sensitive Wire Marker

Easy release vinyl cloth markers feature a strong, pressure-sensitive adhesive, for long lasting bond on a wire or cable. Black non-smear legends on white background for easy identification.

- Convenient pocket-size booklet
- 10 sheets numbered 1 to 45 each sheet

| Part No. | Product No. | 1 | 10 | 100 |
|----------|-------------|---------|---------|--------|
| 216813CX | TCWM-3 | \$12.95 | \$11.05 | \$8.25 |

Self Adhesive Wire Marker

- 90 markers per number
- Stick to wires for permanent identification
- Cloth tape label numbered 0-9
- Used after or before terminal

| Part No. | Product No. | 1 | 10 |
|----------|-------------|--------|--------|
| 182262CX | 0215WMB-1 | \$9.95 | \$8.95 |

3M Tape Wire Marker

- For marking wires with numerical sequence
- Self adhesive tapes numbered 0-9
- Size: (tape) 96"L x 0.25"W

| Part No. | Description | 1 | 10 |
|----------|--------------------------|---------|---------|
| 159231CX | Numerical tape dispenser | \$30.95 | \$27.95 |

Cable Markers

- UL approved natural nylon
- 10 piece minimum

| Part No. | Size | 10 | 100 | 1000 |
|----------|----------------|-----|-----|------|
| 182705CX | 1.5"L x .75"W | .10 | .09 | .08 |
| 182713CX | 2.5"L x 1.76"W | .26 | .22 | .17 |

Call for OEM pricing – we carry major manufacturers.

3M Spring Connectors



This simplifies selection of the right connector for a wide range of wiring jobs. There's also less inventory to manage, and a better chance you'll have the connector you need to do every job.

285683CX: 2#22 to 2#12AWG, orange with blue skirt; replaces the orange, blue, and gray wire nut style connectors as well as 70% of the yellow wire nut and wing style connectors

285691CX: 2#18 to 2#8 to 5#12 AWG, red with yellow skirt, replaces both red and yellow wing style connectors

285704CX: 4#14 to 2#6 to 3#8 AWG, blue with gray skirt, covers both the large blue and gray connectors

• Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Product No. | 10 | 100 | 500 |
|-----------------|-------------|--------|--------|--------|
| 285683CX | 3M O/B+ | \$.084 | \$.075 | \$.071 |
| 285691CX | 3M R/Y+ | .132 | .106 | .10 |
| 285704CX | 3M B/G+ | .253 | .253 | .253 |

Wire Connectors



- Material: UL approved nylon 66, 94V2
- Quick and secure method to splice control wires
- Strip wire before application • Twist on type
- Material: PVC with metal spring, except P/N 182449CX nylon 66, 94-2 and P/N 140716CX PE - metal inside

182449CX: UL/CSA approved

• Sold in increments of 10, 100 or 1000

| Part No. | Description | Color | 10 | 100 | 1000 |
|-----------------|--------------------|-------|--------|--------|--------|
| 182449CX | Crimp 16-14 AWG* | Nat. | \$.06 | \$.055 | \$.049 |
| 182511CX | Wire-nut 16 AWG | Blue | \$.045 | .04 | .035 |
| 140716CX | Wire IDC 22-18 AWG | Red | .15 | .14 | .10 |

* Requires crimping tool (P/N 72995CX, pg 186)

Telecom Splice Connectors

- Provides clean, solid, and rapid connection of wires to keep communication lines free of noise
- Available to handle a wide range of conductor sizes

169754CX: Y-Type

• Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Color | Wire Gauge | No. of Conductors | 10 | 100 | 1000 |
|-----------------|--------|------------|-------------------|-------|-------|-------|
| 169746CX | Yellow | 22-26 | 2 | \$.11 | \$.10 | \$.08 |
| 169754CX | Red | 19-26/3Y | 3Y | .15 | .14 | .12 |

Round-Type Strain Relief Bushings

- Material: UL approved nylon 66, 94V-2
- Color: black
- Used extensively for protecting cords and to prolong cord life

• Sold in increments of 10, 100 or 1000

| Part No. | Cable Type | Lgth (in.) | 10 | 100 | 1000 |
|-----------------|----------------|------------|-------|--------|-------|
| 182351CX | SVI/SVT | .43 | \$.05 | \$.043 | \$.04 |
| 182369CX | SJ/SJT; 16 AWG | .58 | .18 | .10 | .085 |
| 182377CX | SJC; 18 AWG | .58 | .24 | .22 | .20 |

Heat Shrink Tubing

- 2:1 uniform shrink ratio
- Color: black

182748CX

182772CX



PVC Heat Shrink Tubing

- Shrink temp: 125°C
- Sold in 10' and 100' increments

| Part No. | Dia. before (mm) | 10 ft. | 100 ft. |
|-----------------|------------------|--------|---------|
| 184721CX | .12" (3) | \$1.19 | \$10.50 |
| 182730CX | .16" (4) | 1.39 | 12.50 |
| 182748CX | .20" (5) | 1.45 | 13.00 |
| 182756CX | .24" (6) | 1.49 | 13.50 |
| 182764CX | .31" (8) | 1.79 | 16.00 |
| 182772CX | .43" (11) | 2.80 | 19.00 |
| 182781CX | .59" (15) | 3.50 | 30.00 |

PVC Heat Shrink Flat Film

- Shrink temperature: 175°C
- Temperature range: -45°C to +125°C

* Precut 39" length; sold as 1 increment

Quantity
SAVE

| Part No. | Flat | Unshrunk | Shrunk | 1* | 10* | 100* |
|----------------|--------|----------|--------|--------|--------|--------|
| 70631CX | 5/16" | 1/4" | 1/8" | \$1.69 | \$1.55 | \$1.39 |
| 70623CX | 1/2" | 5/16" | 3/16" | 1.69 | 1.45 | 1.09 |
| 70666CX | 13/16" | 9/16" | 1/4" | 1.69 | 1.45 | 1.09 |

Polyolefin Heat Shrink Tubing

- Dielectric strength: 1300V
- Flame retardant
- Flexible
- Shrink temp.: 121°C
- Temperature range: -45°C to +125°C

* Precut 39" length; sold as 1 increment

| Part No. | Before | After (Dia.) | 1* | 10* | 100* |
|-----------------|--------|--------------|-------|-------|-------|
| 71327CX | 1/16" | 1/32" | \$.55 | \$.46 | \$.41 |
| 71870CX | 3/32" | 3/64" | .55 | .45 | .39 |
| 71280CX | 1/8" | 1/16" | .69 | .59 | .54 |
| 72063CX | 1/4" | 1/8" | .89 | .72 | .65 |
| 226245CX | 3/8" | 3/16" | 1.09 | .98 | .88 |
| 216477CX | 1/2" | 1/4" | .99 | .89 | .89 |

3M Heat Shrink Tubing 102-Piece Kit

3M™ FP-301 is a heat shrinkable flexible polyolefin tubing that offers an outstanding balance of electrical, physical and chemical properties for a wide variety of industrial and military applications. Rated for 275°F (135°C) continuous operation. FP-301 tubing is typically used as a shrink-fit electrical insulation over cable splices and terminations. It is also used for lightweight wire harness covering, wire marking, wire bundling, component packaging and fire resistant covering.

- Assorted pre-shrink sizes: 3/16" (30 pieces); 1/4" (28 pieces); 3/8" (20 pieces); 1/2" (14 pieces); 3/4" (6 pieces); 1" (4 pieces)
- Pre-cut to 6' lengths

| Part No. | Description | 1 | 5 | 10 | 50 |
|-----------------|-----------------|---------|---------|---------|---------|
| 285481CX | Heat shrink kit | \$56.95 | \$53.70 | \$50.99 | \$48.45 |

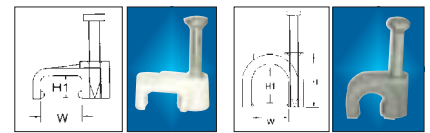
Bushing Assembly Tool

- For use with strain relief bushings, left



| Part No. | Description | 1 | 10 | 100 |
|----------------|--------------|---------|---------|---------|
| 73470CX | Bushing tool | \$31.95 | \$28.75 | \$25.85 |

Nail-In Cable Clips



190810CX

190861CX

- Material: impact resistant PE
- With nails inserted
- Sold in increments of 100 or 1000

For telephone cords; white

| Part No. | Mfr. Cross Ref. No. | W x H x H1 (in.) | 100 | 1000 |
|-----------------|---------------------|------------------|--------|--------|
| 190810CX | NF0.7 | .22 x .22 x .12 | \$.006 | \$.005 |
| 190828CX | NF1.2 | .24 x .21 x .15 | .014 | .013 |
| 190836CX | NF1.6 | .31 x .31 x .20 | .014 | .013 |
| 190844CX | NF2.0 | .33 x .31 x .20 | .007 | .006 |
| 190852CX | NF2.8 | .59 x .50 x .34 | .01 | .009 |

For general round cables; gray

| Part No. | Mfr. Cross Ref. No. | W x H x H1 (in.) | 100 | 1000 |
|-----------------|---------------------|------------------|--------|--------|
| 190861CX | NCO.35N | .14 x .23 x .15 | \$.085 | \$.035 |
| 190879CX | NCO.5N | .20 x .30 x .21 | .014 | .013 |
| 190887CX | NC1N | .24 x .35 x .26 | .05 | .02 |
| 190895CX | NC2N | .31 x .45 x .34 | .05 | .02 |
| 190908CX | NC3N | .39 x .53 x .41 | .05 | .02 |

Insulated Solderless Terminals

- Insulation thickness: .030"
- Funnel ramp entry • Temperature to 105°C
- Use with crimping tool P/N 72995CX, pg 186
- Sold in increments of 10, 100 or 1000

Ring Solderless

| Part No. | Color | Wire Gauge | Stud | 10 | 100 | 1000 |
|-----------------|-------|------------|------|-------|-------|-------|
| 103683CX | Red | 16-22 | #6 | \$.11 | \$.07 | \$.05 |

Spade Solderless

| Part No. | Color | Wire Gauge | Stud | 10 | 100 | 1000 |
|-----------------|-------|------------|------|-------|-------|-------|
| 103587CX | Red | 16-22 | #6 | \$.13 | \$.06 | \$.05 |
| 103595CX | Blue | 14-16 | #8 | .12 | .068 | .06 |

Disconnect Solderless

| Part No. | Descrip. | Color | Gauge | Blade | 10 | 100 | 1000 |
|-----------------|----------|-------|-------|-------|-------|-------|-------|
| 106921CX | Female | Red | 16-22 | .187" | \$.12 | \$.07 | \$.05 |
| 103667CX | Female | Red | 16-22 | .25" | .12 | .07 | .05 |
| 109111CX | Female† | Red | 16-22 | .25" | .17 | .11 | .055 |

† includes hood

171-Pc. Solderless Terminal Kit

- Clear, hinged plastic box
- Use crimping tool P/N 72995CX, pg 186

170 Terminals and Connectors!



| Qty. | Description | Wire Gauge | Blade Size | Qty. | Description | Wire Gauge | Blade Size |
|------|-------------|------------|------------|------|-------------|------------|------------|
| 10 | Male spade | 16-22 | 1/4" | 10 | Ring term. | 14-16 | #10 |
| 10 | Male spade | 14-16 | 1/4" | 5 | Ring term. | 10-12 | #10 |
| 10 | Fem. spade | 16-22 | 1/4" | 5 | Ring term. | 10-12 | #14 |
| 10 | Fem. spade | 14-16 | 1/4" | 10 | Spade term. | 16-22 | #6 |
| 10 | Ring term. | 16-22 | #6 | 10 | Spade term. | 16-22 | #8 |
| 10 | Ring term. | 16-22 | #8 | 10 | Spade term. | 14-16 | #10 |
| 10 | Ring term. | 16-14 | #10 | 10 | Butt conn. | 16-22 | - |
| 15 | Ring term. | 14-16 | #6 | 10 | Butt conn. | 14-16 | - |
| 10 | Ring term. | 14-16 | #8 | 5 | Butt conn. | 10-12 | - |

| Part No. | Description | 1 | 10 | 25 |
|----------------|--------------|--------|--------|--------|
| 10989CX | Terminal kit | \$8.95 | \$7.95 | \$7.25 |

Modular Plugs



P = No. of positions C = No. of contacts
W/E = Western Electric type number

* Prepackaged: order in increments of 10, 100 or 1000 116610CX

| Part No. | Description | W/E | 1 | 10 | 100 | 1000 |
|----------|--|-----|------|--------|---------|---------|
| 103491CX | 4P4C (handset) | 616 | * | \$.11 | \$.099 | \$.089 |
| 79290CX | 6P4C (RJ11) | 623 | * | .12 | .11 | .095 |
| 79273CX | 6P6C (RJ11) | 623 | * | .22 | .195 | .18 |
| 79281CX | 8P8C (RJ45) (for stranded wire) | 641 | .35 | .28 | .24 | .20 |
| 119343CX | 8P8C (RJ45) unshielded (for solid wire) | — | .49 | .44 | .35 | .28 |
| 116610CX | 8P8C (RJ45) shielded | — | 1.09 | .99 | .89 | .79 |
| 204222CX | 8P8C (RJ45) shielded (for STP solid wire) | — | .95 | .89 | .79 | .75 |
| 204231CX | 8P8C (RJ45) shielded (for STP stranded wire) | — | 1.55 | 1.49 | 1.15 | .95 |
| 116601CX | 8P8C (RJ45) shielded (for solid wire) | — | .99 | .79 | .65 | .49 |
| 180646CX | 10P10C (for stranded wire) | — | 1.39 | 1.15 | .82 | .69 |

Modular Jacks



• Voltage rating: 150VAC max.
• Contact current rating: 1.5A max. @ 25°C
• Durability: 750 mating cycles • PC mount
W/E = Western Electric type number

| Part No. | Description | W/E | 1 | 10 | 100 |
|----------|--|-----|--------|--------|--------|
| 199620CX | 4P4C (handset) .48"W | — | \$.36 | \$.33 | \$.30 |
| 115128CX | 4P4C (handset) .395"W | — | .37 | .34 | .31 |
| 151765CX | 6P4C (RJ11) side flange AMP | — | .45 | .43 | .39 |
| 105945CX | 6P4C (RJ11) top flange | 623 | .62 | .49 | .39 |
| 204206CX | 6P4C (RJ11) lead wires | — | 1.09 | .99 | .89 |
| 115836CX | 6P6C (RJ11) side flange | — | .74 | .67 | .59 |
| 204177CX | 6P6C (RJ11) dual | — | 1.49 | 1.35 | 1.19 |
| 124038CX | 6P6C (RJ11) 6" leads | — | 1.25 | 1.15 | .99 |
| 115844CX | 8P8C (RJ45) | 641 | .48 | .44 | .40 |
| 204185CX | 8P8C (RJ45) w/ key | — | .22 | .20 | .18 |
| 204193CX | 8P8C (RJ45) w/o key | — | .22 | .20 | .18 |
| 204214CX | 8P8C (RJ45) .81"L | — | 1.19 | 1.09 | .95 |
| 203449CX | 8P8C (RJ45) shielded Pin spacing "A" = .055" | — | 1.19 | .99 | .85 |

RJ45-Plug Color Caps (Boots)

| Part No. | Color | Quantity | 10 | 100 | 500 | 1000 |
|----------|--------|----------|--------|--------|--------|---------|
| 204409CX | Black | SAVE | \$.14 | \$.13 | \$.10 | \$.076 |
| 204388CX | Yellow | | .14 | .13 | .10 | .076 |
| 204353CX | Gray | | .14 | .13 | .10 | .076 |
| 204361CX | Blue | | .14 | .13 | .10 | .076 |
| 204425CX | Red | | .14 | .13 | .11 | .076 |
| 204396CX | Green | | .14 | .13 | .10 | .076 |
| 204370CX | Ivory | | .14 | .13 | .10 | .076 |

"EZ" RJ45 Connector

Strip the wire and insert into the plug & pull out the wire on the other side. This ensures correct conductor order and uniformity in crimping. No wire bar and no wasted cable.

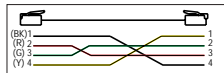
- For solid or stranded wire • 8P8C plug
- Use standard modular crimping tool

| Part No. | Product No. | 1 | 10 | 100 | 250 |
|----------|----------------|--------|--------|--------|--------|
| 158115CX | RJ45 (8P8C) .. | \$1.75 | \$1.58 | \$1.42 | \$1.25 |

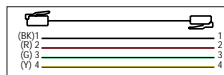
Modular Couplers and Adapters



Style 1 Reverse wiring for telephone systems



Style 2 Straight wiring for networking/printer sharing



| Part No. | Description | Fig. | 1 | 10 | 100 |
|----------|--|------|--------|--------|--------|
| 72207CX | 6P4C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug (6P4C), 2 female modular receptacles (6P4C) RJ11 | 2 | \$.99 | \$.85 | \$.65 |
| 71757CX | 6P6C modular coupler, Style 1, RJ11 | 1 | .95 | .86 | .79 |
| 135087CX | 6P6C modular coupler, Style 2, RJ11 | 1 | .99 | .89 | .79 |
| 181091CX | 6P6C male "T" adapter, Style 2. Provides 2 jacks from 1 line. Male modular plug (6P6C), 2 female modular receptacles (6P6C) RJ11 | 2 | .99 | .89 | .78 |
| 118501CX | 8P8C modular coupler, Style 1, RJ45 | 1 | 1.85 | 1.75 | 1.55 |
| 135079CX | 8P8C modular coupler, Style 2, RJ45 | 1 | 1.39 | 1.25 | 1.15 |
| 153023CX | 8P8C modular coupler, Style 2 (for Cat. 5) RJ45 | 3 | 7.99 | 7.19 | 6.49 |

Modular Jack Boxes & Wall Plate

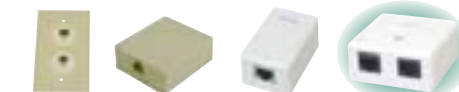
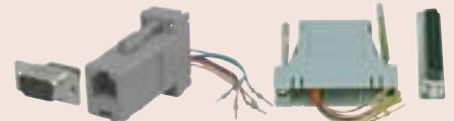


Fig. 1: W: 2.8" H: 4.5" D: 1.1" (72311CX)
Fig. 2: W: 2.0" H: 2.2" D: 0.9" (71651CX)
Fig. 3: W: 1.5" H: 2.4" D: 1.1" (213031CX)
Fig. 4: W: 2.4" H: 2.4" D: 1.1" (213049CX)

| Part No. | Description | Fig. | 1 | 10 | 100 |
|----------|---|------|--------|--------|--------|
| 72311CX | 6P6C & 8P8C double wall jack plate w/ jacks (beige) | 1 | \$1.95 | \$1.75 | \$1.57 |
| 103464CX | 6P4C adhesive jack RJ11 (beige) | 2 | 1.39 | 1.19 | 1.09 |
| 71984CX | 6P6C adhesive jack RJ11 (beige) | 2 | 1.39 | 1.19 | .99 |
| 71651CX | 8P8C adhesive jack RJ45 (beige) | 2 | 1.95 | 1.65 | 1.45 |
| 213031CX | 8P8C adhesive jack RJ45 (single, white) (CAT 5e) | 3 | 3.29 | 2.99 | 2.69 |
| 213049CX | 8P8C adhesive jack RJ45 (dual, white) (CAT 5e) | 4 | 4.15 | 3.75 | 3.39 |

RS-232-to-RJ11/RJ45 Modular Jack Adapters



Change your RS-232 port to a RJ11 or RJ45 modular jack. This will allow you to use modular phone cable rather than RS-232 cable, thus simplifying networking applications. Comes complete with all necessary wiring and hardware.

| Part No. | Description | 1 | 10 | 100 |
|----------|-----------------------|--------|--------|--------|
| 204265CX | DB9 M to RJ11 (6P4C) | \$1.95 | \$1.65 | \$1.25 |
| 66181CX | DB9 M to RJ11 (6P6C) | 2.59 | 2.35 | 2.09 |
| 66190CX | DB9 M to RJ45 (8P8C) | 2.89 | 2.65 | 2.35 |
| 114737CX | DB9 F to RJ11 (6P4C) | 1.95 | 1.79 | 1.59 |
| 66202CX | DB9 F to RJ11 (6P6C) | 2.79 | 2.55 | 2.29 |
| 66211CX | DB9 F to RJ45 (8P8C) | 2.99 | 2.69 | 2.45 |
| 204281CX | DB25 M to RJ11 (6P4C) | 2.39 | 2.15 | 1.29 |
| 66229CX | DB25 M to RJ11 (6P6C) | 2.95 | 2.35 | 1.99 |
| 66237CX | DB25 M to RJ45 (8P8C) | 2.99 | 2.69 | 2.45 |
| 204273CX | DB25 F to RJ11 (6P4C) | 1.95 | 1.75 | 1.55 |
| 66245CX | DB25 F to RJ11 (6P6C) | 2.59 | 1.95 | 1.39 |
| 66253CX | DB25 F to RJ45 (8P8C) | 2.89 | 2.59 | 2.29 |

Modular Telephone/Printer Sharing Cables (Gray)

- RJ11 – 6P2C/6P4C for telephone or network
- RJ11 – 6P6C for telephone or printer sharing
- RJ45 – 8P8C for telephone or modem-dial-up use

Style 1 – Reverse wiring for telephone systems

Style 2 – Straight wiring for networking/printer sharing



| Part No. | Conn. Style | Type | Length | 1 | 10 | 100 |
|----------|-------------|-----------|--------|--------|--------|--------|
| 189940CX | 1 | RJ11-6P2C | 7ft. | \$.99 | \$.84 | \$.63 |
| 196226CX | 1 | RJ11-6P4C | 7ft. | 1.49 | 1.15 | .79 |
| 115553CX | 2 | RJ11-6P4C | 7ft. | 1.25 | 1.09 | .89 |
| 115545CX | 1 | RJ11-6P4C | 25ft. | 2.29 | 2.09 | 1.85 |
| 201232CX | 2 | RJ11-6P4C | 35ft. | 1.95 | 1.66 | 1.24 |
| 115588CX | 1 | RJ11-6P6C | 7ft. | 1.55 | 1.35 | 1.15 |
| 115617CX | 2 | RJ11-6P6C | 7ft. | 2.19 | 1.99 | 1.79 |
| 115676CX | 2 | RJ45-8P8C | 7ft. | 1.89 | 1.75 | 1.49 |

† Beige

Surface Mount Boxes

Category 5 and 5e

- RJ45 • 8P8C
- 100MHz
- Size: 2.6"L x 3.2"W x 1.2"H
- CAT 5e (except P/N 176073CX)

| Part No. | Description | 1 | 10 | 100 |
|----------|---------------------|--------|--------|--------|
| 176073CX | Single jack (beige) | \$6.95 | \$6.25 | \$5.59 |
| 213022CX | Single jack (white) | 6.95 | 6.25 | 5.59 |
| 176081CX | Dual jack (beige) | 8.99 | 7.64 | 5.89 |
| 213014CX | Dual jack (white) | 9.95 | 8.95 | 7.95 |

Opening an account is easy!! Call
1-800-831-4242 for details today.

Corporate Customers

Category 5e Network Cables

- 24 AWG (7 x 43) stranded
- UTP • 8P8C • 4 pair
- "Snagless" boot
- Color coded for easy wire tracing
- High-flexibility
- Achieve optimum system performance

Category 5e (350MHz)

| Part No. | Length | Color | 1 | 10 | 100 |
|----------|--------|--------|--------|--------|--------|
| 168292CX | 3 ft. | Gray | \$1.79 | \$1.49 | \$1.39 |
| 168305CX | 7 ft. | Gray | \$2.99 | 2.59 | 2.39 |
| 168313CX | 15 ft. | Gray | 5.29 | 4.39 | 3.99 |
| 168321CX | 25 ft. | Gray | 7.99 | 6.79 | 6.39 |
| 201777CX | 3 ft. | Red | 1.79 | 1.49 | 1.39 |
| 201785CX | 7 ft. | Red | 2.99 | 2.59 | 2.39 |
| 201793CX | 15 ft. | Red | 6.95 | 5.95 | 4.45 |
| 201806CX | 25 ft. | Red | 7.99 | 6.79 | 6.39 |
| 201697CX | 3 ft. | Black | 1.79 | 1.49 | 1.39 |
| 201700CX | 7 ft. | Black | 2.99 | 2.59 | 2.39 |
| 201718CX | 15 ft. | Black | 5.29 | 4.39 | 3.99 |
| 201726CX | 25 ft. | Black | 7.99 | 6.79 | 6.39 |
| 201734CX | 3 ft. | Blue | 1.79 | 1.49 | 1.39 |
| 201742CX | 7 ft. | Blue | 2.99 | 2.59 | 2.39 |
| 201751CX | 15 ft. | Blue | 5.29 | 4.39 | 3.99 |
| 201769CX | 25 ft. | Blue | 7.99 | 6.79 | 6.39 |
| 201814CX | 3 ft. | Yellow | 1.79 | 1.49 | 1.39 |
| 201822CX | 7 ft. | Yellow | 2.99 | 2.59 | 2.39 |
| 201831CX | 15 ft. | Yellow | 5.29 | 4.39 | 3.99 |
| 201849CX | 25 ft. | Yellow | 7.99 | 6.79 | 6.39 |

Category 5 (100MHz)

| Part No. | Length | Color | 1 | 10 | 100 |
|----------|--------|--------|--------|--------|--------|
| 281261CX | 7 ft. | Gray | \$2.49 | \$2.39 | \$2.25 |
| 277641CX | 6 ft. | Red | 2.49 | 2.25 | 1.99 |
| 277659CX | 12 ft. | Black | 2.99 | 2.69 | 2.45 |
| 203051CX | 10 ft. | Blue | 2.75 | 2.15 | 1.59 |
| 277675CX | 12 ft. | Blue | 2.99 | 2.69 | 2.45 |
| 277616CX | 6 ft. | Yellow | 2.49 | 2.25 | 1.99 |
| 277667CX | 12 ft. | Yellow | 2.99 | 2.69 | 2.45 |

Bulk Modular Network Cables

- 8 Conductor
 - UTP
 - 4 twisted pairs
 - Insulation: polyethylene
 - Nom. OD.: 189"
 - Nominal impedance: 100Ω
- Solid:** uses modular plug P/N 119343CX, pg 66
Stranded: uses modular plug P/N 79281CX, pg 66
- 118130CX/201646CX: 7/32 AWG
- Prepackaged and priced in increments of 25', 100' or 1000'

24 AWG UTP Category 5e – 350MHz

| Part No. | Description | 25 ft. | 100 ft. | 1000 ft. |
|----------|-------------------|--------|---------|----------|
| 176225CX | Solid (gray) | \$5.00 | \$17.00 | \$100.00 |
| 201603CX | Solid (blue) | 5.00 | 14.00 | 90.00 |
| 176233CX | Stranded (gray) | 6.00 | 21.00 | 180.00 |
| 201574CX | Stranded (red) | 6.00 | 18.00 | 160.00 |
| 201591CX | Stranded (black) | 6.00 | 18.00 | 160.00 |
| 201582CX | Stranded (blue) | 6.00 | 18.00 | 160.00 |
| 201566CX | Stranded (yellow) | 6.00 | 18.00 | 160.00 |

24 AWG UTP Category 5 – 100MHz

| Part No. | Description | 25 ft. | 100 ft. | 1000 ft. |
|----------|------------------|--------|---------|----------|
| 118130CX | Stranded (gray) | \$5.95 | \$19.35 | \$164.50 |
| 201646CX | Stranded (black) | 5.50 | 15.00 | 140.00 |

CAT 5e Crossover Cable

- Connect 2 PCs without a hub
- 24AWG (7 x 43) stranded
- Strain relief RJ45 connectors
- 4-pair • 8P8C • UTP
- Color: gray

| Part No. | Description | 1 | 10 | 100 |
|----------|----------------|--------|--------|--------|
| 169261CX | 10' cable RJ45 | \$6.95 | \$6.25 | \$5.59 |

Keystone-Type Wall Plates

- Size: 2.8"W x 4.5"H

| Part No. | No. of ports | Color | 1 | 10 | 100 |
|----------|--------------|-------|--------|--------|--------|
| 195549CX | 1 | Ivory | \$1.25 | \$1.15 | \$.99 |
| 195557CX | 2 | Ivory | 1.25 | 1.15 | .99 |
| 195565CX | 3 | Ivory | 1.25 | 1.05 | .79 |
| 195573CX | 4 | Ivory | 1.25 | 1.06 | .80 |
| 212978CX | 1 | White | 1.25 | 1.15 | .99 |
| 212994CX | 2 | White | 1.25 | 1.15 | .99 |
| 212986CX | 3 | White | 1.25 | 1.15 | .99 |
| 212960CX | 4 | White | 1.25 | 1.15 | .99 |
| 213508CX | Hole Filler | White | .28 | .25 | .23 |

Modular Jacks

Punchdown Keystone Type

- Removable jacks used in wall plates (clip in)
 - CAT 5e classification
 - Punchdown type wiring connections with color coding
 - Size: 0.57"W x 0.63"H x 1.23"D
- RJ45: 8P8C RJ11: 6P6C

RJ45

| Part No. | Color | 1 | 10 | 100 |
|----------|--------|--------|--------|--------|
| 195590CX | Red | \$3.75 | \$3.55 | \$3.19 |
| 195602CX | Yellow | 3.75 | 3.55 | 3.19 |
| 195611CX | Green | 3.75 | 3.19 | 2.39 |
| 195629CX | Black | 3.75 | 3.55 | 3.19 |
| 195637CX | Ivory | 3.75 | 3.19 | 2.39 |
| 212951CX | Blue | 3.75 | 3.55 | 3.19 |
| 212943CX | White | 3.75 | 3.55 | 3.19 |

RJ11

| Part No. | Color | 1 | 10 | 100 |
|----------|-------|--------|--------|--------|
| 213524CX | Black | \$3.75 | \$3.55 | \$2.99 |
| 213516CX | White | 3.75 | 3.55 | 3.19 |

BNC/F-Type Jacks

- Removable jacks used in wall plates (see above)
- Clip on for easy installation on wall plates
- Keystone type

| Part No. | Description | Color | 1 | 10 | 100 |
|----------|---------------|-------|--------|--------|--------|
| 195645CX | F-Type F to F | Ivory | \$1.39 | \$1.29 | \$1.19 |
| 224645CX | F-Type F to F | White | 1.39 | 1.29 | 1.19 |
| 224637CX | BNC F to F | White | 2.29 | 2.05 | 1.89 |

Sale items in yellow.

Jameco Special Values!

Great quantity discounts in green.

Category 6 Network Cables

- With RJ45 plugs and molded strain reliefs
- Assembled using ETL verified 24AWG stranded cable
- Gold over nickel contacts
- Exceeds performance levels as specified in TIA/EIA 568B.2-1 Category 6 draft 8

Category 6

| Part No. | Length | Color | 1 | 10 | 50 |
|----------|--------|--------|--------|--------|--------|
| 219707CX | 3 ft. | Gray | \$2.79 | \$2.69 | \$2.56 |
| 219715CX | 7 ft. | Gray | 3.99 | 3.87 | 3.68 |
| 219723CX | 14 ft. | Gray | 6.59 | 6.37 | 6.05 |
| 219731CX | 25 ft. | Gray | 9.39 | 8.92 | 8.47 |
| 219740CX | 50 ft. | Gray | 14.29 | 13.58 | 12.90 |
| 219854CX | 3 ft. | Blue | 2.79 | 2.69 | 2.56 |
| 219862CX | 7 ft. | Blue | 3.99 | 3.87 | 3.68 |
| 219871CX | 14 ft. | Blue | 6.59 | 6.37 | 6.05 |
| 219889CX | 25 ft. | Blue | 9.39 | 8.92 | 8.47 |
| 219897CX | 50 ft. | Blue | 14.29 | 13.58 | 12.90 |
| 220003CX | 3 ft. | White | 2.79 | 2.69 | 2.56 |
| 220011CX | 7 ft. | White | 3.99 | 3.87 | 3.68 |
| 220020CX | 14 ft. | White | 6.59 | 6.37 | 6.05 |
| 220038CX | 25 ft. | White | 9.39 | 8.92 | 8.47 |
| 220046CX | 50 ft. | White | 14.29 | 13.58 | 12.90 |
| 219900CX | 3 ft. | Red | 2.79 | 2.69 | 2.56 |
| 219918CX | 7 ft. | Red | 3.99 | 3.87 | 3.68 |
| 219926CX | 14 ft. | Red | 6.59 | 6.37 | 6.05 |
| 219934CX | 25 ft. | Red | 9.39 | 8.92 | 8.47 |
| 219942CX | 50 ft. | Red | 14.29 | 13.58 | 12.90 |
| 219803CX | 3 ft. | Green | 2.79 | 2.69 | 2.56 |
| 219811CX | 7 ft. | Green | 3.99 | 3.87 | 3.68 |
| 219820CX | 14 ft. | Green | 6.59 | 6.37 | 6.05 |
| 219838CX | 25 ft. | Green | 9.39 | 8.92 | 8.47 |
| 219846CX | 50 ft. | Green | 14.29 | 13.58 | 12.90 |
| 219758CX | 3 ft. | Black | 2.79 | 2.69 | 2.56 |
| 219766CX | 7 ft. | Black | 3.99 | 3.87 | 3.68 |
| 219774CX | 14 ft. | Black | 6.59 | 6.37 | 6.05 |
| 219782CX | 25 ft. | Black | 9.39 | 8.92 | 8.47 |
| 219791CX | 50 ft. | Black | 14.29 | 13.58 | 12.90 |
| 219951CX | 3 ft. | Yellow | 2.79 | 2.69 | 2.56 |
| 219969CX | 7 ft. | Yellow | 3.99 | 3.87 | 3.68 |
| 219977CX | 14 ft. | Yellow | 6.59 | 6.37 | 6.05 |
| 219985CX | 25 ft. | Yellow | 9.39 | 8.92 | 8.47 |
| 219993CX | 50 ft. | Yellow | 14.29 | 13.58 | 12.90 |

3M CAT5e RJ45 Modular Jack

A unique and simple CAT5e hardware component (TIA/EIA-568 B.2) utilizing the universally accepted keystone mount. It offers a quick and reliable connection as the eight conductors are effortlessly terminated in a single operation.

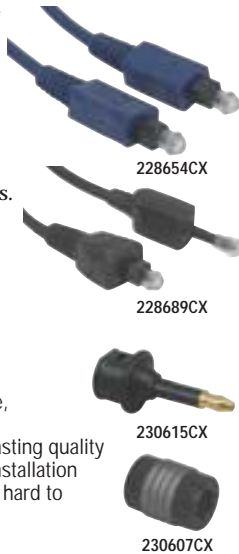
- UL verified TIA/EIA-568 B.2 CAT5e
- Tool-less connector
- Keystone mount
- Integral shutter
- Top or bottom cable insertion
- Self-stripping contacts

| Part No. | Product No. | 1 | 10 | 100 |
|----------|---------------|--------|--------|--------|
| 263071CX | VOL-OCK5E-U-W | \$6.89 | \$6.55 | \$6.25 |

Digital Audio Optical Cables and Adapters

Connect your DVD, CD, Mini Disc, DAT, game console or other digital audio equipment for clear, full and richly detailed sound. For the ultimate listening experience, connect to your Dolby Digital® or DTS® home theater equipment. These cost effective performance TOSLINK type cables give you the cleanest possible signal, even at extreme volume levels for today's audio and home theater applications. They are manufactured with high-quality P.M.M.A. optical fiber and highly-polished lenses. The durable connectors ensure long lasting, corrosion-free connections. The stylish PVC jacket adds flexibility and durability for years of listening pleasure.

- Low-loss core provides low distortion and high signal-to-noise ratio
- Clad reflecting layer prevents phase error and noise, achieving high-fidelity transmission effect
- Corrosion-resistant, precise collar to ensure long lasting quality
- Non-slip rubber grip connector provides for easy installation
- Ultra flexible PVC jacket makes installation, even in hard to reach areas a snap



Cables

| Part No. | Description | 1 | 2 | 5 |
|----------|-----------------------------|--------|--------|--------|
| 228654CX | 3' TOSLINK-TOSLINK | \$3.79 | \$3.35 | \$2.85 |
| 228689CX | 3' TOSLINK-mini plug | 9.95 | 8.95 | 7.95 |
| 228662CX | 6' TOSLINK-TOSLINK | 4.75 | 4.29 | 3.79 |
| 228697CX | 6' TOSLINK-mini plug | 16.65 | 14.99 | 13.49 |
| 228671CX | 12' TOSLINK-TOSLINK | 7.29 | 6.59 | 5.95 |
| 228700CX | 12' TOSLINK-mini plug | 23.29 | 20.95 | 18.85 |

Adapters

| | | | | |
|----------|-----------------------------------|--------|--------|--------|
| 230615CX | TOSLINK - mini plug adapter | \$2.79 | \$2.59 | \$2.49 |
| 230607CX | TOSLINK - TOSLINK coupler | 1.89 | 1.79 | 1.69 |

Component Video and Audio Cables

Component video cables connect the latest video equipment like DVD players equipped with component video output jacks to LCD or plasma televisions, projectors and other component video devices. By using component video cables, you bypass the TV's Y/C separator and color decoder, routing the color (Y Pr Pb) information directly into the TV's matrix decoder. By sending the pure DVD component signal directly to a component video input-equipped display device, the DVD signal forgoes the extra processing that normally would degrade the image. Python™ component video cables provide you maximum picture and sound quality compared to ordinary "out of the box" cables.

- Low-loss 75Ω oxygen-free copper center conductors and foam dielectric provide maximum signal transfer bandwidth for improved picture quality and performance
- Corrosion resistant, precise 24k gold-plated connectors ensure long lasting quality
- Fully molded color coded connectors attached to an ultra-flexible PVC jacket provides excellent strain relief, easy installation, and identification
- 100%, .012mm aluminum-polyester foil shielding and spiral-wound copper-braid shielding provides clear, noise-free, vivid picture quality
- Bonded construction design for neat, easy connection of component video and audio



| Part No. | Description | 1 | 2 | 5 |
|----------|--|---------|---------|--------|
| 228620CX | 6' component video RGB cable | \$12.35 | \$11.15 | \$9.99 |
| 228638CX | 12' component video RGB cable | 23.75 | 21.39 | 19.25 |
| 228646CX | 25' component video RGB cable | 33.95 | 30.59 | 27.49 |
| 229403CX | 6' component video RGB and stereo audio cable | 17.29 | 15.59 | 13.99 |
| 229411CX | 12' component video RGB and stereo audio cable | 33.25 | 29.95 | 26.95 |
| 229420CX | 25' component video RGB and stereo audio cable | 47.55 | 42.79 | 38.55 |

Audio Adapters and Cables

RCA Audio Adapters

| Part No. | Description | 1 | 10 | 25 | 100 |
|----------|--|--------|--------|--------|--------|
| 228283CX | RCA female jack to mono 1/4" male plug | \$.99 | \$.89 | \$.69 | \$.55 |
| 228312CX | RCA male plug to 1/4" mono female jack | 1.25 | 1.10 | .79 | .69 |
| 228267CX | RCA female to female jack coupler, gold plated | .95 | .79 | .55 | .45 |
| 159441CX | RCA female to female jack coupler, metal | 1.15 | .99 | .75 | .65 |
| 228259CX | RCA male to male plug adapter | 1.59 | 1.25 | .99 | .85 |
| 228339CX | RCA F jack to 3.5mm mono M plug, gold plated | 1.49 | 1.29 | 1.09 | .90 |
| 228291CX | RCA F jack to 3.5mm mono M plug, nickel plated | 1.25 | 1.09 | .89 | .75 |
| 215458CX | RCA male plug to 3.5mm mono female jack | .89 | .75 | .69 | .59 |

RCA Y-Cables

| | | | | | |
|----------|--|--------|--------|--------|--------|
| 139037CX | 5' Y-cable 1/8" stereo M plug to (2) RCA M plugs | \$2.25 | \$1.99 | \$1.79 | \$1.61 |
| 228371CX | 6' Y-cable (2) RCA M plugs to RCA F jack | .99 | .89 | .80 | .72 |
| 228355CX | 6' Y-cable RCA M plug to (2) RCA F jacks | 1.15 | .99 | .85 | .79 |
| 228380CX | 6' Y-cable (2) RCA F jacks to 3.5mm stereo plug | 1.65 | 1.35 | 1.25 | 1.19 |
| 215466CX | 8" Y-cable RCA M plug to (2) RCA M plugs | 1.89 | 1.69 | 1.53 | 1.38 |

3.5mm Audio Adapters

| | | | | | |
|----------|---|-----------------------|--------|--------|---------|
| 228275CX | 3.5mm stereo female to female jack | \$.55 | \$.49 | \$.44 | \$.365 |
| 215440CX | 3.5mm mono female jack to 1/4" mono male plug | \$2.29 .15 | .14 | .12 | .11 |
| 196082CX | 3.5mm stereo female jack to 1/4" stereo male plug | .59 | .49 | .31 | .28 |
| 228304CX | 3.5mm stereo M plug to (2) 1/4" stereo F jacks | 2.05 | 1.85 | 1.25 | 1.15 |
| 228339CX | 3.5mm mono M plug to RCA F jack, gold plated | 1.49 | 1.29 | 1.09 | .90 |
| 228291CX | 3.5mm mono M plug to RCA F jack, nickel plated | 1.25 | 1.09 | .89 | .75 |
| 215458CX | 3.5mm mono female jack to RCA male plug | .89 | .75 | .69 | .59 |

3.5mm Y-Cables

| | | | | | |
|----------|---|--------|--------|--------|--------|
| 139037CX | 5' Y-cable 1/8" stereo M plug to (2) RCA M plugs | \$2.25 | \$1.99 | \$1.79 | \$1.61 |
| 228398CX | 6' Y-cable (2) 3.5mm stereo female jacks to 3.5mm stereo male plugs | 1.95 | 1.65 | 1.35 | 1.25 |
| 228380CX | 6' Y-cable (2) RCA F jacks to 3.5mm stereo M plug | 1.65 | 1.35 | 1.25 | 1.19 |



Audio/Video Cables and Adapters

RCA Cables

Quantity
SAVE

| Part No. | Description | 1 | 10 | 25 |
|----------|--|--------|--------|--------|
| 215474CX | 3' RCA male plug – female jack (gray) | \$.89 | \$.79 | \$.69 |
| 228443CX | 3' stereo RCA (2) male to (2) male plugs, gold plated | 1.49 | 1.39 | 1.29 |
| 183311CX | 4' RCA male to male plug (black) | .99 | .89 | .79 |
| 206973CX | 4' RCA male to male plug (yellow) | .99 | .89 | .79 |
| 183302CX | 4' RCA (2) male to (2) male plugs (red/black) | 1.75 | 1.45 | 1.35 |
| 106374CX | 6' RCA male to male plug | 1.19 | .99 | .75 |
| 228419CX | 6' mono RCA male plug to female jack | 1.65 | 1.45 | 1.25 |
| 228486CX | 6' RCA stereo (2) male plugs to (2) female jacks | 1.25 | 1.15 | 1.05 |
| 228451CX | 6' RCA stereo (2) male to (2) male plugs, gold plated | 1.79 | 1.69 | 1.59 |
| 228401CX | 6' RCA stereo (2) male plugs to 3.5mm stereo male plug | 1.55 | 1.39 | 1.25 |
| 236865CX | 6' RCA (3) male to (3) male plugs, gold plated | 2.39 | 2.05 | 1.55 |
| 184882CX | 6' RCA (3) male to (3) male plugs, low loss | 1.95 | 1.79 | 1.59 |
| 228427CX | 10' RCA female jack to male plug | 2.35 | 1.95 | 1.79 |
| 29348CX | 10' RCA male to male plug (yellow) | 1.69 | 1.44 | 1.08 |
| 228460CX | 12' RCA stereo (2) male to (2) male plugs, gold plated | 2.10 | 1.89 | 1.75 |
| 225980CX | 12' RCA (3) male to (3) male plugs, gold plated | 4.49 | 3.89 | 2.89 |
| 225998CX | 20' RCA (3) male to (3) male plugs, gold plated | 7.99 | 6.79 | 5.09 |
| 228435CX | 25' mono RCA male to male plug, nickel plated | 2.19 | 2.09 | 1.99 |
| 228478CX | 25' RCA stereo (2) male to (2) male plugs, gold plated | 2.39 | 2.29 | 2.19 |

3.5mm Audio Patch Cables

| Part No. | Description | 1 | 10 | 25 |
|----------|---|--------|--------|--------|
| 228494CX | 6' 3.5mm stereo male to male plug | \$1.39 | \$1.19 | \$.99 |
| 228515CX | 6' 3.5mm stereo male plug to female jack | 1.49 | 1.35 | 1.25 |
| 228507CX | 12' 3.5mm stereo male to male plug | 1.69 | 1.49 | 1.29 |
| 228523CX | 12' 3.5mm stereo male plug to female jack | 1.65 | 1.49 | 1.35 |



Video/Audio Patch Cables

| Part No. | Description | 1 | 10 | 25 |
|----------|---|--------|--------|--------|
| 228216CX | 3' stereo video patch cable, gold plated | \$1.19 | \$1.13 | \$1.07 |
| 228574CX | 25' stereo video patch cable, gold plated | 6.99 | 6.29 | 5.65 |
| 228582CX | 50' stereo video patch cable, gold plated | 12.59 | 11.35 | 10.19 |

VCR Cable

| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------------|--------|--------|--------|
| 228224CX | 6' stereo VCR cable | \$2.39 | \$2.29 | \$2.15 |

S-VHS Cables and Adapters

Low-loss fully shielded Super-VHS cables, 4-contact mini DIN plus S-VHS cable and dual-RCA plug stereo cables.

- Fully-molded color coded gold RCA connectors
- Flexible black PVC jacket
- Applications: home theaters, DSS receivers, Super-VHS VCRs, camcorders, and DVD players

228558CX/228566CX: 95% spiral wound shield S-VHS/audio conductors

| Part No. | Description | 1 | 10 | 25 |
|----------|--|--------|--------|--------|
| 228591CX | 6' S-VHS video cable, gold plated | \$2.15 | \$1.95 | \$1.79 |
| 228558CX | 6' S-VHS audio-video cable, gold plated | 12.95 | 11.65 | 10.49 |
| 228566CX | 12' S-VHS audio-video cable, gold plated | 14.95 | 13.45 | 12.15 |
| 228603CX | 12' S-VHS video cable, gold plated | 2.65 | 2.35 | 2.10 |
| 228611CX | 25' S-VHS video cable, gold plated | 4.05 | 3.85 | 3.65 |
| 229809CX | S-video 4-pin mini DIN female to female jack | 2.85 | 2.59 | 2.29 |
| 229391CX | S-video male plug to RCA video female jack | 5.39 | 4.85 | 4.39 |



3.5mm Female Jacks and Male Plugs



- Threaded screw on housing
- 1mm diameter solder eyelets
- Shield crimp tabs

231159CX/231167CX: With spring strain relief

| Part No. | Mfr. Cross Ref. No. | Description | 1 | 10 | 100 | 1000 |
|----------|---------------------|------------------------------------|----------------------|--------|--------|--------|
| 109495CX | PJ035PM | Mono F jack, 3.5mm hole size | \$.45 | \$.40 | \$.36 | \$.32 |
| 165729CX | PJ0354 | Mono F jack, 3.5mm hole size | .69 | .59 | .49 | .39 |
| 101151CX | PJ1035 | Mono male plug, plastic | .55 | .43 | .36 | .32 |
| 147344CX | PJ1035L | Mono male plug, plastic | \$.64 .55 | .43 | .36 | .32 |
| 231159CX | AP-336 | Mono male plug, metal | 1.25 | 1.19 | 1.09 | .95 |
| 231175CX | AP-340 | Stereo male plug, plastic | .55 | .43 | .36 | .32 |
| 231167CX | AP-343 | Stereo male plug, metal | 1.79 | 1.60 | 1.45 | 1.30 |

RCA Plugs

- High-quality plastic and metal housing RCA plugs

Gold plated metal housing w/ spring strain relief for 6.7mm cables

| Part No. | Description | 1 | 10 | 25 | 100 |
|----------|--------------|--------|--------|--------|--------|
| 229876CX | Black | \$1.89 | \$1.69 | \$1.55 | \$1.39 |
| 229868CX | Red | 1.89 | 1.69 | 1.55 | 1.39 |
| 229884CX | White | 1.89 | 1.69 | 1.55 | 1.39 |
| 230287CX | Yellow | 1.89 | 1.69 | 1.55 | 1.39 |

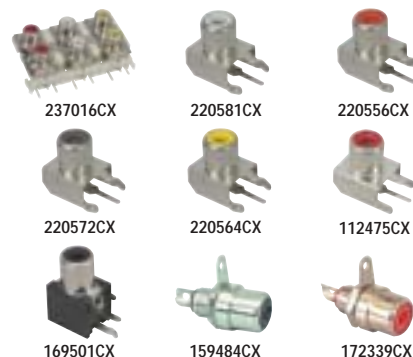
Plastic screw-on cover w/ integral cable protection

| Part No. | Description | 1 | 10 | 25 | 100 |
|----------|---------------------|--------|--------|-----|-----|
| 229921CX | Black (5 pk) | \$1.15 | \$1.05 | .91 | .85 |
| 229930CX | Red (5 pk) | 1.15 | 1.05 | .91 | .85 |
| 229913CX | White (5 pk) | 1.19 | 1.09 | .95 | .89 |
| 229892CX | Yellow (5 pk) | 1.19 | 1.09 | .95 | .89 |

RCA Jacks

- Standard RCA jacks for audio and video signals
- P/N 237016CX: 2x3 grid; † Red/white/yellow

| Part No. | Dimensions | Color | 1 | 10 | 100 | 1000 |
|----------|-----------------------|-----------|--------|--------|--------|--------|
| 237016CX | 2.0"W x .45"D x 1.1"H | † | \$.89 | \$.79 | \$.69 | \$.65 |
| 220581CX | .44"W x .56"D x .48"H | Wht | .45 | .31 | .28 | .22 |
| 220556CX | .44"W x .56"D x .48"H | Red | .45 | .31 | .28 | .22 |
| 220572CX | .44"W x .56"D x .48"H | Blk | .45 | .31 | .28 | .22 |
| 220564CX | .44"W x .56"D x .48"H | Yel | .45 | .31 | .28 | .22 |
| 112475CX | .44"W x .58"D x .48"H | Red | .39 | .35 | .31 | .19 |
| 169501CX | .40"W x .85"D x .50"H | Blk | .39 | .35 | .32 | .26 |
| 159484CX | .84"W x .38"H | Blk | .49 | .39 | .33 | .24 |
| 172339CX | .84"W x .38"H | Red | .49 | .39 | .31 | .23 |



30-Day Money-Back Guarantee

If you're not satisfied we'll take it back! Details on page 241.

Switchcraft is a leading supplier and manufacturer of electronic and electromechanical components for the audio, video, telecommunication, computer, medical, military, appliance, transportation and instrumentation industries. Their components include jacks, connectors, jack panels, plugs, jackfields, patch cords, power plugs, switches, EAC power receptacles and molded cable assemblies.

Power Plugs and Jacks

| Part No. ⬆ | Product No. | Description | Dimensions | 1 | 10 | 25 | 100 |
|-----------------|-------------|------------------------------------|-----------------------------|--------|--------|--------|--------|
| 281851CX | 722A | 2.1mm DC power jack, panel mount | 15.1mm x 7.5mm Dia. | \$2.09 | \$1.94 | \$1.75 | \$1.65 |
| 281842CX | 712A | 2.5mm DC power jack, panel mount | 15.8mm x 7.5mm Dia. | 2.05 | 1.88 | 1.76 | 1.65 |
| 281877CX | 760 | 2.5mmx5.5mm DC power plug, plastic | 9.6mm x 36.3mm x 5.7mm Dia. | 2.15 | 1.94 | 1.76 | 1.59 |



Audio Plugs and Jacks

| Part No. ⬆ | Product No. | Description | Dimensions | 1 | 10 | 25 | 100 |
|-----------------|-------------|---------------------------------------|----------------------------|--------|--------|--------|--------|
| 281885CX | 780 | 3.5mm mono audio plug, metal | 14.1mm x 41.1mm x 5.3mm ID | \$3.89 | \$2.94 | \$2.69 | \$2.45 |
| 281869CX | 750 | 3.5mm mono audio plug, plastic | 14.0mm x 41.5mm x 5.7mm ID | 2.49 | 2.17 | 1.99 | 1.81 |
| 281834CX | 41 | 3.5mm audio jack | 7.8mm x 5.9mm Dia. | 1.29 | 1.22 | 1.07 | 1.02 |
| 281789CX | 297 | 1/4" stereo phone audio plug, metal | 73.7mm L x 7.6mm ID | 4.59 | 3.82 | 3.19 | 2.91 |
| 281771CX | 280 | 1/4" mono phone audio plug, metal | 73.7mm L x 7.6mm ID | 3.15 | 2.82 | 2.58 | 2.36 |
| 281762CX | 267 | 1/4" stereo phone audio plug, plastic | 73.7mm L x 7.6mm ID | 4.25 | 3.22 | 2.95 | 2.69 |
| 281754CX | 250 | 1/4" mono phone audio plug, plastic | 73.7mm L x 7.6mm ID | 2.55 | 2.39 | 2.13 | 1.94 |
| 281746CX | 12B | 1/4" stereo phone audio jack | 14.7mm x 9.1mm Dia. | 1.49 | 1.39 | 1.32 | 1.24 |
| 281738CX | 11 | 1/4" mono phone audio jack | 12.8mm x 9.1mm Dia. | 1.39 | 1.29 | 1.19 | 1.15 |



RCA Plugs and Jacks

| Part No. ⬆ | Product No. | Description | Dimensions | 1 | 10 | 25 | 100 |
|-----------------|-------------|----------------------------------|--------------------------|--------|--------|--------|--------|
| 281826CX | 3503 | RCA phono audio jack, metal | 43.2mm L x 7.6mm ID | \$2.59 | \$1.97 | \$1.81 | \$1.64 |
| 281818CX | 3502A | RCA phono audio plug, nickel | 42.4mm L x 7.3mm ID | 1.85 | 1.66 | 1.54 | 1.40 |
| 281800CX | 3502 | RCA mono phono audio plug, metal | 33.8mm L x 5.0mm ID | 1.75 | 1.37 | 1.21 | 1.10 |
| 281797CX | 3501FP | RCA phono audio jack, metal | 16.3mm x 6.0mm Dia. | 1.29 | 1.00 | .91 | .84 |



Microphone (XLR) Connectors

| Part No. ⬆ | Product No. | Description | Dimensions | 1 | 10 | 25 | 100 |
|-----------------|-------------|--------------------------------|------------------------------|--------|--------|--------|--------|
| 277026CX | A3F | 3-pin female, metal | 82.5mm x 5.3mm Dia. | \$4.49 | \$3.99 | \$3.58 | \$3.26 |
| 277034CX | A3FB | 3-pin female, black | 82.0mm x 5.8mm Dia. | 5.19 | 3.99 | 3.65 | 3.33 |
| 281560CX | A3M | 3-pin male, metal | 70.3mm x 5.3mm Dia. | 3.89 | 3.27 | 2.89 | 2.63 |
| 281578CX | A3MB | 3-pin male, black | 70.3mm x 6.1mm Dia. | 4.59 | 3.53 | 3.24 | 2.95 |
| 281640CX | D3F | 3-pin female, metal, panel mt. | 27mm W x 36.3mm H x 30.6mm D | 5.89 | 4.50 | 4.13 | 3.75 |
| 281658CX | D3M | 3-pin male, metal, panel mt. | 27mm W x 36.3mm H x 30.6mm D | 4.35 | 3.33 | 3.06 | 2.78 |
| 281720CX | J3FS | 3-pin female wall plate | 69.9mm W x 114.3mm H | 23.19 | 20.88 | 18.79 | 16.82 |
| 281586CX | A4F | 4-pin female, metal | 82.0mm x 5.5mm Dia. | 7.25 | 5.56 | 5.09 | 4.64 |
| 281594CX | A4M | 4-pin male, metal | 71.2mm x 4.8mm Dia. | 4.59 | 4.08 | 3.68 | 3.32 |
| 281666CX | D4F | 4-pin female, metal, panel mt. | 27mm W x 36.3mm H x 30.6mm D | 8.35 | 6.38 | 5.85 | 5.32 |
| 281674CX | D4M | 4-pin male, metal, panel mt. | 27mm W x 36.3mm H x 30.6mm D | 5.19 | 3.96 | 3.63 | 3.31 |
| 281607CX | A5F | 5-pin female, metal | 82.0mm x 4.7mm Dia. | 12.09 | 9.06 | 8.31 | 7.55 |
| 281615CX | A5M | 5-pin male, metal | 70.2mm x 5.3mm Dia. | 9.35 | 7.18 | 6.58 | 5.92 |
| 281682CX | D5F | 5-pin female, metal, panel mt. | 27mm W x 36.3mm H x 30.6mm D | 13.39 | 10.32 | 9.46 | 8.55 |
| 281691CX | D5M | 5-pin male, metal, panel mt. | 27mm W x 36.3mm H x 30.6mm D | 9.25 | 7.01 | 6.43 | 5.84 |
| 281623CX | A6F | 6-pin female, metal | 80.2mm x 4.6mm Dia. | 10.79 | 10.25 | 9.45 | 8.32 |
| 281631CX | A6M | 6-pin male, metal | 70.5mm x 4.5mm Dia. | 9.99 | 10.69 | 8.69 | 7.68 |
| 281703CX | D6F | 6-pin female, metal, panel mt. | 27mm W x 36.3mm H x 30.6mm D | 18.95 | 14.19 | 13.02 | 11.83 |
| 281711CX | D6M | 6-pin male, metal, panel mt. | 27mm W x 36.3mm H x 30.6mm D | 12.35 | 11.80 | 9.49 | 8.30 |



⬆ These products ship from a separate warehouse. Each warehouse will accrue separate shipping charges.

RGB Video Cables

- 75Ω coaxial cable; 6' or 10'
- Pin 1 red, pin 2 green, pin 3 blue, pin 14 white/black vertical, pin 13 gray horizontal
- 5 BNCs to HDDB15-pin male
- Weight: 0.9 lbs.



Quantity
SAVE

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------------|---------|---------|----------------|
| 73648CX | 6' cable (black) | \$19.95 | \$16.99 | \$12.75 |
| 118068CX | 10' cable (black) | 31.95 | 27.15 | (20.39) |

Serial Null Modem Cables

- Molded type connectors
- Color: gray
- 181403CX/180697CX Pin outs:**
1 & 6-4, 2-3, 3-2, 4-6 & 1, 5-5, 7-8, 8-7
- 181438CX Pin outs:** 2-2; 3-3; 5 & 6-4; 7-5; 8-7; 20-6 & 8 (Serial Printer Null Modem)
- 180582CX Pin outs:** 2-2; 3-3; 4-5 & 6; 5-7; 6 & 8-20: 7-8; (Serial Printer Null Modem)
- 180742CX Pin outs:** 1-4 & 5; 2-2; 3-3; 4-6; 5-7; 6-20; 7-8; 8-8



| Part No. | Description | Wt. (lbs.) | 1 | 10 | 50 |
|----------|---------------------|------------|--------|--------|--------|
| 181403CX | 6' DB9 F to DB9 F | 0.3 ... | \$5.69 | \$5.09 | \$4.59 |
| 180697CX | 10' DB9 F to DB9 F | 0.4 | 6.79 | 6.09 | 5.49 |
| 181438CX | 6' DB25 M to DB9 F | 0.4 | 4.95 | 4.49 | 3.95 |
| 180582CX | 10' DB25 M to DB9 F | 0.4 | 6.69 | 6.05 | 5.45 |
| 180742CX | 10' DB25 F to DB9 F | 0.5 | 7.39 | 6.65 | 5.99 |

VGA Monitor Cables

- Connects video card to VGA monitor
- IBM PC/XT and higher compatibles
- HDDB15 male to male



| Part No. | Description | 1 | 10 | 100 |
|----------|-------------------------|--------|--------|--------|
| 66173CX | 6' monitor cable | \$6.49 | \$5.89 | \$5.29 |
| 148523CX | 10' monitor cable | 6.95 | 6.25 | 5.99 |

9-Pin Monitor Cable

- For monochrome, RGB, EGA and multisync monitors
- Connects video card to monitor
- IBM PC/XT and higher compatibles



| Part No. | Description | 1 | 10 | 100 |
|----------|------------------|--------|--------|--------|
| 66157CX | 6' DB9 M-M | \$4.45 | \$3.95 | \$3.55 |

VGA Monitor Extension Cables

- Extends VGA monitor cable; HDDB15 male-to-female
- IBM PC/XT and higher compatibles
- 134041CX:** • HDDB15 female with hex nuts and HDDB15 male with thumbscrews
- Thumbscrews on each end



| Part No. | Description | 1 | 10 | 100 |
|----------|------------------------|--------|--------|--------|
| 134041CX | 6' screws/hex nuts ... | \$4.49 | \$3.95 | \$3.49 |
| 66165CX | 6' thumbscrews | 6.59 | 5.95 | 5.35 |
| 148531CX | 10' thumbscrews | 7.49 | 6.79 | 5.99 |

DA15 Extension Cables

- Molded connectors
- Straight through
- Thumbscrews
- Color: gray (237032CX: black)



| Part No. | Description | Length | 1 | 10 | 100 |
|----------|-------------|----------|--------|--------|---------------|
| 181286CX | DA15 M-M | 6' | \$5.49 | \$4.95 | \$4.45 |
| 181358CX | DA15 M-F | 6' | 5.49 | 4.95 | 4.45 |
| 237032CX | DA15 M-F | 8' | 6.99 | 5.95 | (4.45) |

DB25-to-Centronics Parallel Printer Cables

- Molded and fully shielded DB25 male and 36-pin Centronics male connectors
- IBM PC/XT and higher compatibles



| Part No. | Description | Wt. (lbs.) | 1 | 10 | 100 |
|----------|------------------|------------|--------|--------|---------------|
| 28716CX | 6' straight | 0.4 ... | \$4.69 | \$4.25 | \$3.85 |
| 223845CX | 6' straight | 0.6 ... | 11.95 | 10.95 | 10.95 |
| 123781CX | 10' straight | 0.6 | 5.95 | 5.09 | (3.79) |
| 164777CX | 10' right angle* | 0.7 | 4.95 | 4.45 | 3.95 |
| 28708CX | 15' straight | 0.8 | 5.95 | 5.09 | (3.79) |
| 101899CX | 25' straight | 1.1 | 5.95 | 5.09 | (3.79) |

* Centronics right angle

37-Pin Straight Through Cable Adapters

180611CX



181294CX



- Molded connectors
- Color: gray
- Weight: 0.9 lbs.

| Part No. | Description | 1 | 10 | 100 |
|----------|-------------------|--------|--------|--------|
| 180611CX | 6' DC37 M-M | \$6.95 | \$6.29 | \$5.65 |
| 181294CX | 6' DC37 M-F | 5.95 | 5.49 | 4.95 |

Monitor/Mouse/Keyboard Cables

- 6' or 32'
- HDDB15 male/female for monitor, 5-pin DIN male/female for keyboard, and DB9 male/female for mouse



| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-------------|------------|---------|---------|
| 141284CX | 6' cable | 1.6 | \$22.95 | \$19.95 |
| 141276CX | 32' cable | 4.8 | 39.95 | 35.95 |

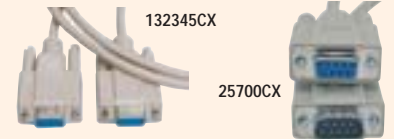
Switch Box Adapter Cables

- 177261CX:** Male to male non-coiled cable for P/N 79177CX switch box, pg 175
- 114913CX:** Male to male coiled cable for P/N 114155CX switch box, pg 175
- 174772CX:** Male to male
- 174908CX/205655CX:** Male to male non-coiled
- 112627CX:** Male to male non-coiled cable for P/N 79177CX switch box, pg 175



| Part No. | Description | Length | 1 | 10 | 50 |
|----------|----------------|-------------|--------|--------|---------------|
| 114913CX | 5-pin DIN | 5' (gray) | \$4.95 | \$4.49 | \$3.95 |
| 177261CX | 6-pin mini DIN | 2' (gray) | 2.95 | 2.55 | (1.89) |
| 174772CX | 6-pin mini DIN | 6' (black) | 4.95 | 4.25 | (3.19) |
| 174908CX | 6-pin mini DIN | 6' (gray) | 5.75 | 5.15 | 4.65 |
| 112627CX | 6-pin mini DIN | 10' (beige) | 7.95 | 7.25 | 6.49 |
| 205655CX | 6-pin mini DIN | 25' (beige) | 8.95 | 7.95 | 6.95 |

DB9 Extension Cables



- All lines connected straight through
- 132345CX/196365CX:**
- DB9 female to DB9 female cable with thumbscrews
- 220661CX/25700CX/148515CX/199638CX:**
- DB9 male to DB9 female cable with thumbscrews
- 181665CX:** • DB9 male to DB9 male cable

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|----------------|--------|--------|--------|--------|
| 220661CX | 5' M-F | \$4.39 | \$3.89 | \$3.35 | \$2.89 |
| 132345CX | 6' F-F | 4.95 | 4.49 | 3.95 | 3.49 |
| 199638CX | 6' M-F (black) | 4.49 | 3.95 | 3.49 | 2.95 |
| 25700CX | 6' M-F | 4.95 | 4.49 | 3.95 | 3.49 |
| 196365CX | 10' F-F | 6.95 | 6.25 | 5.59 | 4.95 |
| 148515CX | 10' M-F | 7.49 | 6.79 | 5.99 | 4.95 |
| 181665CX | 10' M-M | 6.95 | 6.25 | 5.59 | 4.95 |

9-Pin Test Cable

- DB9 M to DB9 F (6')
- Pin outs: 1-3, 2-2, 4-5



| Part No. | Description | 1 | 10 | 100 |
|----------|------------------------|--------|--------|---------------|
| 162915CX | DB9 male to DB9 female | \$2.95 | \$2.51 | (1.88) |

DB9-to-DB25 AT-Adapter Serial Cables

- For DB9 serial ports which need to be converted to DB25 serial
- AT and compatibles
- Molded DB9 female to DB25 male connectors



| Part No. | Description | 1 | 10 | 100 |
|----------|-------------------------|--------|--------|---------------|
| 109583CX | 1' serial, beige | \$4.35 | \$3.95 | \$3.49 |
| 189333CX | 3' serial, beige | 3.95 | 3.39 | (2.55) |
| 207790CX | 4' serial, beige | 2.35 | 2.15 | 1.95 |
| 31721CX | 6' serial, beige | 3.89 | 3.55 | 3.15 |
| 191361CX | 6' serial, gray | 4.39 | 3.99 | 3.15 |
| 155521CX | 10' serial, beige | 3.95 | 3.55 | 3.15 |

DB25 Extension Cables

- All lines connected straight through
- Use to lengthen your standard serial cable or for switch box applications
- Thumbscrews to secure connectors
- Color: gray; except P/Ns 174001CX/175290CX: black*



| Part No. | Description | Wt. (lbs.) | 1 | 10 | 50 | 100 |
|----------|-------------|------------|--------|--------|--------|---------------|
| 281551CX | 3' M-M | 0.4 | \$4.45 | \$4.25 | \$3.99 | \$3.79 |
| 174001CX | 3' M-M* | 0.6 | 4.79 | 4.35 | 3.89 | 3.49 |
| 65787CX | 6' M-M | 0.5 | 6.49 | 5.89 | 5.29 | 4.89 |
| 39538CX | 10' M-M | 0.7 | 6.95 | 6.29 | 5.05 | (3.69) |
| 179979CX | 15' M-M | 1.2 | 6.95 | 6.29 | 5.05 | (3.65) |
| 67070CX | 25' M-M | 1.4 | 10.95 | 9.95 | 8.95 | 7.95 |
| 180435CX | 50' M-M | 3.6 | 14.95 | 13.49 | 11.95 | 9.95 |
| 164291CX | 3' M-F | 0.4 | 4.29 | 3.89 | 3.49 | 2.95 |
| 175290CX | 3' M-F* | 0.4 | 2.95 | 2.69 | 2.25 | 1.59 |
| 163133CX | 5' M-F | 0.6 | 5.29 | 4.75 | 4.29 | 3.85 |
| 67256CX | 6' M-F | 0.6 | 6.45 | 5.79 | 5.25 | 4.69 |
| 39511CX | 10' M-F | 0.7 | 6.95 | 6.29 | 5.05 | (3.69) |
| 177279CX | 15' M-F | 1.0 | 9.49 | 8.55 | 7.69 | 6.25 |
| 101995CX | 25' M-F | 1.4 | 11.95 | 10.79 | 9.69 | 7.95 |
| 181201CX | 50' M-F | 3.2 | 17.95 | 14.39 | 10.79 | (7.55) |
| 224266CX | 6' F-F | 0.7 | 4.95 | 3.95 | 2.95 | 2.09 |

USB Cables and Adapters

Color Code Legend
New Sale Qty. Save Closeout

USB-A Female Cables & Bracket

- Supports data transfer rates of 12Mbps
- Allows connection of two devices
- Dual USB-A female connectors • 8" long



| Part No. | Description | 1 | 10 | 25 |
|----------|----------------------|--------|--------|--------|
| 144813CX | USB-A panel mount .. | \$6.95 | \$6.25 | \$5.59 |



USB-to-Centronics Printer Cable

- Full compliance with the USB spec V.1.0
- USB-A male to 36-pin male centronics connector
- Supports true bidirectional communication
- Applicable to standard and bidirectional printers



| Part No. | Description | 1 | 10 | 25 |
|----------|--------------|--------------------|---------|---------|
| 155352CX | 6' USB cable | \$29.95 | \$26.95 | \$24.25 |
| | | | | \$21.55 |

USB Cable Extender

- Extends distance between USB devices by up to 16'
- Complies with USB electrical and timing specifications
- Compatible with high and low speed USB devices
- Interface: USB-A male to USB-A female
- Size: (adapter): 2.8"L x 1.5"W x 0.6"H • Wt.: 1.0 lb.



Includes: USB-A male to USB-B female cable

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------------|---------|---------|--------------------|
| 191441CX | 16' USB extender ... | \$29.50 | \$25.09 | \$18.79 |

USB to Serial Adapter with Prolific Chipset

This USB serial adapter provides an external Plug-and-Play RS-232 port for computers, notebooks, laptops, and handheld held computing devices. Provides high-quality serial connections at transfer rates of more than 500kpbs for cell phones, PDAs, digital cameras, modems and ISDN terminal adapters. Since it is a USB connection it eliminates the hassles of traditional serial port connections and IRQ conflicts.



- Frees existing RS-232 ports for other uses
- Supports RS-232 serial interface, automatic hand-shake mode, remote wake-up & power management
- Provides a 96-byte buffer for each upstream and downstream data transfer • Weight: 1.5 lbs.
- Full compliance with USB specification v 1.1
- 7" cable with DB25 male connector and 14" cable with USB-A connector • Size: 2.7"L x 1.6"W x 0.7"H

System requirements: Windows®98/2000, USB host controlled installed in the system

Includes: 3.5" software and manual

| Part No. | Description | 1 | 5 |
|----------|---------------------------------|---------|---------|
| 213006CX | USB-A to serial converter | \$29.95 | \$27.95 |

USB Gender Adapters

USB-A to USB-B

169383CX: USB-A (M) to USB-B (F)

169375CX: USB-A (F) to USB-B (M)



| Part No. | Dimensions | 1 | 10 | 25 |
|----------|---------------------|--------|--------|--------|
| 169383CX | 1.3"L x 0.4"W | \$6.95 | \$6.35 | \$5.59 |
| 169375CX | 1.7"L x 0.6"W | 6.95 | 6.35 | 5.59 |

Retractable USB and Firewire Cables



Carrying all those extra cables for your computer peripherals such as printers, cameras, zip drives, external hard drives, adds weight and gets tangled in your computer bag. With these retractable USB and Firewire cables, you can easily store them in an inside pocket of your bag, plus they are tangle free. Just pull the cable on both ends of the spool and you have a high quality cable that extends to over 2'. Simply pull again and it retracts back into its housing.

USB cables

| Part No. | Description | 1 | 5 |
|----------|----------------------------|--------|--------|
| 226376CX | USB A male to female | \$9.95 | \$9.45 |
| 226368CX | USB A - B | 9.95 | 9.45 |
| 226384CX | USB A - Mini 4-pin | 9.95 | 9.45 |
| 226392CX | USB A - Mini 5-pin | 9.95 | 9.45 |

Firewire cables

| Part No. | Description | Price |
|----------|---------------------------------|---------|
| 226405CX | 4-pin M - M, 400Mbps | \$11.95 |
| 227424CX | 6-pin M - 4-pin M 400Mbps | 11.95 |
| 227459CX | 6-pin M - M 400Mbps | 11.95 |

IEEE 1394 Firewire Cables



Connect your computer to the latest high speed Firewire peripherals.

- IEEE-1394 compliant
- UL approved
- Molded connectors

4-pin Male to 4-pin Male

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------------|--------|--------|--------|
| 222631CX | 3' cable black | \$5.99 | \$5.39 | \$4.99 |
| 175821CX | 6' cable black | 7.99 | 6.99 | 5.99 |
| 222244CX | 10' cable black | 9.99 | 8.99 | 7.99 |
| 222252CX | 15' cable black | 12.99 | 11.69 | 10.49 |

4-pin Male to 6-pin Male

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------------|--------|--------|--------|
| 222623CX | 3' cable black | \$5.99 | \$5.39 | \$4.99 |
| 175839CX | 6' cable black | 7.99 | 6.99 | 5.99 |
| 222282CX | 10' cable black | 9.99 | 8.99 | 7.99 |
| 222236CX | 15' cable black | 12.99 | 11.69 | 10.49 |

6-pin Male to 6-pin Male

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------------|--------|--------|--------|
| 222615CX | 3' cable black | \$5.99 | \$5.39 | \$4.99 |
| 175847CX | 6' cable black | 7.99 | 6.99 | 5.99 |
| 222201CX | 10' cable black | 9.99 | 8.99 | 7.99 |
| 222210CX | 15' cable black | 12.99 | 11.69 | 10.49 |

New Lower Prices

USB 2.0 Cables

SALE



- Higher transfer rate up to 480Mbps

USB-A Male to USB-A Male

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------------|--------------------|--------|--------|
| 229681CX | 6' cable beige | \$6.49 | \$1.65 | \$1.49 |
| 222033CX | 6' cable black | \$6.49 | 1.65 | 1.49 |
| 229551CX | 6' cable clear | \$6.49 | 1.65 | 1.49 |
| 229690CX | 10' cable beige | \$7.99 | 1.89 | 1.75 |
| 222041CX | 10' cable black | \$7.99 | 1.89 | 1.75 |
| 229569CX | 10' cable clear | \$7.99 | 1.89 | 1.75 |
| 229702CX | 15' cable beige | \$12.99 | 2.85 | 2.59 |
| 222050CX | 15' cable black | \$12.99 | 2.85 | 2.59 |
| 229577CX | 15' cable clear | \$12.99 | 2.85 | 2.59 |

USB-A Male to USB-B Male

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------------|--------------------|--------|--------|
| 229711CX | 3' cable beige | \$5.99 | \$1.55 | \$1.39 |
| 222607CX | 3' cable black | \$5.99 | 1.55 | 1.39 |
| 229585CX | 3' cable clear | \$5.99 | 1.55 | 1.39 |
| 229729CX | 6' cable beige | \$6.49 | 1.65 | 1.49 |
| 222009CX | 6' cable black | \$6.49 | 1.65 | 1.49 |
| 229593CX | 6' cable clear | \$6.49 | 1.65 | 1.49 |
| 229737CX | 10' cable beige | \$7.99 | 1.89 | 1.75 |
| 222017CX | 10' cable black | \$7.99 | 1.89 | 1.75 |
| 229606CX | 10' cable clear | \$7.99 | 1.89 | 1.75 |
| 229761CX | 15' cable beige | \$12.99 | 2.85 | 2.59 |
| 222025CX | 15' cable black | \$12.99 | 2.85 | 2.59 |
| 229614CX | 15' cable clear | \$12.99 | 2.85 | 2.59 |

USB-A Male to USB-A Female

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------------|--------------------|--------|--------|
| 229770CX | 6' cable beige | \$7.99 | \$1.65 | \$1.49 |
| 222068CX | 6' cable black | \$7.99 | 1.65 | 1.49 |
| 229622CX | 6' cable clear | \$7.99 | 1.65 | 1.49 |
| 229788CX | 10' cable beige | \$9.99 | 1.89 | 1.75 |
| 222076CX | 10' cable black | \$9.99 | 1.89 | 1.75 |
| 229631CX | 10' cable clear | \$9.99 | 1.89 | 1.75 |
| 229796CX | 15' cable beige | \$14.99 | 2.85 | 2.59 |
| 222084CX | 15' cable black | \$14.99 | 2.85 | 2.59 |
| 229649CX | 15' cable clear | \$14.99 | 2.85 | 2.59 |

USB 1.1 Cables

SALE



USB-A Male to USB-A Male

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------|-------------------|--------|-------------------|
| 196904CX | 2' cable | \$1.35 | \$1.15 | \$0.86 |
| 175425CX | 3' cable | \$4.92 | 1.29 | 1.15 |

USB-A Male to USB-B Male

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------|-------------------|--------|--------|
| 175417CX | 3' cable | \$1.29 | \$1.15 | \$1.05 |
| 169359CX | 6' cable | 4.95 | 4.49 | 3.95 |

Jameco's Low-Price Guarantee

We'll match the print advertised price of any like product. It's that simple!

ATX Power Supply 15" Extension Cable

- For use with ATX power supplies
- 20-pin ATX male and female connectors
- Color coded to ATX power supply
- 15"L x 18 AWG (wires)



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 100 |
|----------|---------------------|--------|--------|--------|
| 170237CX | ATX-400-RV | \$6.49 | \$5.85 | \$5.29 |

3.5" & 5.25" Disk Drive Power Splitters

- IBM PC/XT and higher compatibles
- Splits 4-line Molex male into 2 females



| Part No. | Drive | AWG | Length | 1 | 10 | 100 |
|----------|-------|-----|--------|--------|--------|--------|
| 28353CX | 5.25" | 18 | 5" | \$2.95 | \$2.69 | \$2.15 |
| 277528CX | 5.25" | 20 | 6" | 2.85 | 2.59 | 2.25 |
| 72303CX | 3.5" | 22 | 5" | 2.75 | 2.49 | 2.19 |

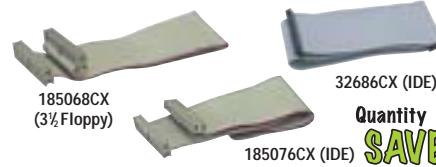
3.5" Disk Drive Power Adapter Cable

- IBM PC/XT and higher compatibles
- Allows connection of standard 3.5" disk drives to power supplies



| Part No. | Length | AWG | 1 | 10 | 100 |
|----------|--------|-----|--------|--------|--------|
| 28396CX | 3.5" | 22 | \$2.49 | \$2.25 | \$1.95 |

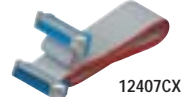
Internal Computer Ribbon Cables



| Part No. | Conductors | Length | 1 | 10 | 100 |
|----------|------------|--------|--------|--------|--------|
| 185068CX | 34 | 9.0" | \$2.95 | \$2.51 | \$1.88 |
| 185076CX | 40 | 14.0" | .79 | .65 | .49 |
| 32686CX | 40 | 18.0" | 3.95 | 3.49 | 2.95 |

Ribbon Cable Assemblies

- Metal connector
- 300V rating
- 105°C rating
- 28 AWG flat cable
- Tin-plated contacts



| Part No. | Description | 1 | 10 | 100 |
|----------|-------------|--------|--------|--------|
| 12407CX | 4' DB25 M-F | \$4.49 | \$3.95 | \$3.59 |
| 208581CX | 6' DB9 M-F | 3.95 | 3.55 | 3.19 |

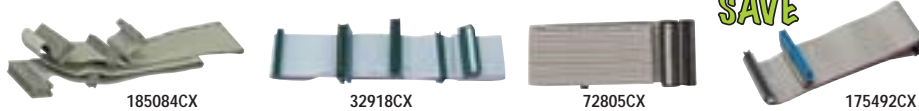
Computer Card Brackets



- For securing cards into bus slots
- Fits standard PC/XT/AT cases
- Length: 4.75"
- See pg 75 for DB connectors

| Part No. | Description | Fig. | 1 | 10 | 100 |
|----------|--------------------|------|--------|--------|--------|
| 11754CX | Blank back panel | 1 | \$1.79 | \$1.59 | \$1.45 |
| 101717CX | For DB9 connector | 2 | 1.79 | 1.59 | 1.45 |
| 101733CX | For DB25 connector | 3 | 1.79 | 1.59 | 1.45 |
| 101741CX | For DC37 connector | 4 | 1.79 | 1.59 | 1.45 |
| 101830CX | For DB9/DB25 conn. | 5 | 1.79 | 1.59 | 1.45 |

Disk Drive Cables



| Part No. | Description | Cable Length | 1 | 10 | 100 |
|----------|---|--------------|--------|--------|--------|
| 185084CX | 34-pin header socket ribbon cable for floppy drive | 25" | \$1.19 | \$.99 | \$.75 |
| 32918CX | 34-pin header socket ribbon cable for floppy to card | 23" | 3.49 | 2.99 | 2.25 |
| 72805CX | Two 40-pin header socket ribbon cable for IDE drive | 18" | 3.69 | 3.14 | 2.35 |
| 175492CX | 40-pin header socket ribbon cable for ultra DMA66/100 | 17" | 6.95 | 6.25 | 5.49 |

Internal and External SCSI Cables for Complete Connectivity



- For PC/XT/AT and compatibles
- All lines connected

| Part No. | Description | 1 | 10 | 100 |
|----------|--|--------|--------|--------|
| 32715CX | 50-pin header socket ribbon cable SCSI-I (18") | \$3.95 | \$3.49 | \$2.95 |
| 72848CX | 50-pin header socket ribbon cable SCSI-I (24") | 1.95 | 1.79 | 1.65 |
| 137550CX | 68-pin header internal ribbon cable SCSI-III (27") | 12.49 | 11.25 | 10.15 |
| 118084CX | Male 50-pin Centronics to male HPDB50 cable SCSI-I to SCSI-II (6') | 14.95 | 13.49 | 11.95 |
| 118076CX | Male HPDB50 to male HPDB50 SCSI-II to SCSI-II (6') | 17.95 | 15.95 | 13.95 |
| 137568CX | Male HPDB68-pin to male HPDB50-pin SCSI-III to SCSI-II (3') | 7.19 | 6.47 | 5.82 |

† Also Macintosh® compatibles, see right for SCSI type connector guide

PC/XT/AT & PS/2 Keyboard Extension Cables

- Color: beige
- 114981CX/112045CX/:
- 5-pin DIN male-to-female
- 28548CX/111053CX:
- 6-pin mini DIN female-to-male

Quantity
SAVE



| Part No. | Description | 1 | 10 | 100 |
|----------|-------------------------|--------|--------|--------|
| 114981CX | PC/XT/AT 6' non-coiled | \$1.99 | \$1.69 | \$1.27 |
| 112045CX | PC/XT/AT 10' non-coiled | 3.95 | 3.36 | 2.52 |
| 28548CX | PS/2 6' non-coiled | 4.35 | 3.89 | 3.49 |
| 111053CX | PS/2 10' non-coiled | 5.49 | 4.99 | 4.39 |

AT-to-PS/2 and PS/2-to-AT Keyboard Adapter Cables

- 28003CX:
- Connects AT-type keyboards to PS/2
- 5-pin female DIN to 6-pin male mini DIN
- 85500CX:
- Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN connectors



| Part No. | Length | Color | Wt. (lbs.) | 1 | 10 | 100 |
|----------|--------|-------|------------|--------|--------|--------|
| 28003CX | 6.5" | Beige | 0.6 | \$3.95 | \$3.49 | \$3.15 |
| 85500CX | 11.3" | Beige | 0.8 | 5.39 | 4.85 | 4.39 |

SCSI Adapters



| Part No. | Description | 1 | 10 | 50 |
|----------|---|--------|--------|--------|
| 133920CX | 50-pin ribbon header SCSI-I to DB25 female | \$6.95 | \$6.25 | \$5.59 |
| 125241CX | 50-pin ribbon header to HPDB50 SCSI-II female | 9.95 | 8.45 | 6.35 |
| 167370CX | DB25 female to HPDB50 male SCSI-II | 3.55 | 3.20 | 2.91 |

SCSI TYPE / CONNECTOR REFERENCE TABLE

| SCSI type | 50-pin Centronics DB25 | 50-pin Header | Half pitch DB50 | Half pitch DB68 | VHD68 Centronics | VHD80 Centronics |
|------------------|------------------------|---------------|-----------------|-----------------|------------------|------------------|
| SCSI-I | ✓ | ✓ | ✓ | ✓ | | |
| SCSI-II | | | ✓ | ✓ | | |
| SCSI-II wide | | | | | ✓ | |
| SCSI-III | | | | | | ✓ |
| RAID: SCA, SCA-2 | | | | | | ✓ |

Corporate Customers

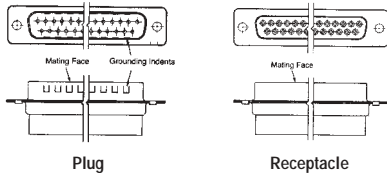
Even lower OEM pricing for larger orders!

D-Subminiature Connectors

- Dielectric withstanding voltage: 1000VAC (one minute)
- Nylon, flame retardant, 94V-0 rated, glass filled
- Low-cost, high-performance, precision formed crimp contacts
- Standard mounting method with 0.120" diameter mounting holes
- Insulation resistance: 5000MΩ
- UL/CSA recognized and certified

Crimp-Type Contacts

- Current rating: 1.2A to 3.7A
- Intermateable with any size 20 D-sub dimensionally complying with MIL-C-24308
- Crimp snap-in contacts allows loading of only the number of contacts being used



Zinc-Plated Shell



| Part No. | Product No. | Cont. | Description | 1 | 10 | 100 |
|----------|-------------|-------|-------------|--------|--------|--------|
| 222640CX | 205204-1 | 9 | Plug | \$.95 | \$.85 | \$.63 |
| 222658CX | 205206-1 | 15 | Plug | 1.39 | 1.24 | .92 |
| 222666CX | 205208-1 | 25 | Plug | 1.05 | .92 | .82 |
| 222674CX | 205210-1 | 37 | Plug | 1.69 | 1.49 | 1.10 |
| 222682CX | 205212-1 | 50 | Plug | 2.10 | 1.79 | 1.35 |
| 222691CX | 205203-1 | 9 | Receptacle | 1.10 | .99 | .77 |
| 222703CX | 205205-1 | 15 | Receptacle | 1.25 | 1.10 | .82 |
| 222711CX | 205207-1 | 25 | Receptacle | 1.05 | .95 | .71 |
| 222720CX | 205209-1 | 37 | Receptacle | 1.69 | 1.49 | 1.10 |
| 222738CX | 205211-1 | 50 | Receptacle | 2.10 | 1.79 | 1.69 |

Tin-Plated Shell

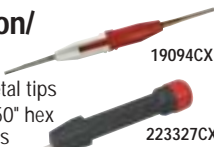


| Part No. | Product No. | Cont. | Description | 1 | 10 | 100 |
|----------|-------------|-------|-------------|--------|--------|--------|
| 222754CX | 205204-3 | 9 | Plug | \$1.29 | \$1.15 | \$.85 |
| 222762CX | 205206-2 | 15 | Plug | 1.49 | 1.29 | .95 |
| 222771CX | 207464-1 | 25 | Plug | .94 | .80 | .61 |
| 222789CX | 205210-2 | 37 | Plug | 1.69 | 1.49 | 1.10 |
| 222797CX | 205204-4 | 9 | Plug* | .83 | .75 | .55 |
| 222800CX | 205206-3 | 15 | Plug* | .99 | .89 | .65 |
| 222818CX | 207464-2 | 25 | Plug* | .88 | .78 | .58 |
| 222826CX | 205210-3 | 37 | Plug* | 1.68 | 1.49 | 1.12 |
| 222834CX | 205212-3 | 50 | Plug* | 1.79 | 1.59 | 1.19 |
| 222842CX | 205203-3 | 9 | Receptacle | .69 | .59 | .52 |
| 222914CX | 205205-2 | 15 | Receptacle | .88 | .78 | .58 |
| 222922CX | 207463-1 | 25 | Receptacle | .99 | .89 | .68 |
| 222931CX | 205209-2 | 37 | Receptacle | 1.19 | 1.05 | .78 |
| 222949CX | 205211-2 | 50 | Receptacle | 2.10 | 1.79 | 1.35 |

* With grounding indents

D-Sub Pin Insertion/
Extraction Tools

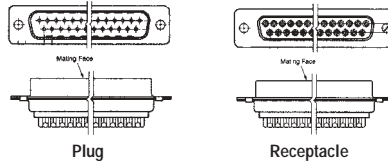
19094CX: Plastic body; metal tips
223327CX: Handle with .050" hex
wrench & exchangeable tips



| Part No. | Description | 1 | 10 | 100 |
|----------|------------------------|--------|--------|--------|
| 19094CX | Red/white plastic body | \$2.79 | \$2.49 | \$2.15 |
| 223327CX | AMP# 91285-1 | 19.99 | 18.99 | 17.99 |

Solder-Cup Contacts

- Current rating: 1.2A to 3.0A
- Intermateable with other D-sub connectors
- One-piece 94V-0 rated plastic insert
- Preloaded duplex-plated solder-cup contacts
- Shields offer full EMI shielding and ESD insulation
- Anti-solderwicking contact design



Zinc-Plated Shell



| Part No. | Product No. | Cont. | Description | 1 | 10 | 100 |
|----------|-------------|-------|-------------|--------|--------|--------|
| 222957CX | 747904-4 | 9 | Plug | \$1.89 | \$1.59 | \$1.32 |
| 222965CX | 747908-4 | 15 | Plug | 2.65 | 2.19 | 1.75 |
| 222973CX | 747912-4 | 25 | Plug | 3.69 | 3.10 | 2.49 |
| 222981CX | 747916-4 | 37 | Plug | 5.45 | 4.56 | 3.79 |
| 223036CX | 747905-4 | 9 | Receptacle | 2.65 | 2.23 | 1.76 |
| 223044CX | 747913-4 | 25 | Receptacle | 4.75 | 3.99 | 3.19 |

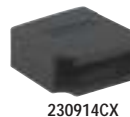
Tin-Plated Shell



| Part No. | Product No. | Cont. | Description | 1 | 10 | 100 |
|----------|-------------|-------|-------------|--------|--------|--------|
| 222990CX | 747904-2 | 9 | Plug | \$1.69 | \$1.55 | \$1.15 |
| 223001CX | 747908-2 | 15 | Plug | 2.79 | 2.49 | 1.85 |
| 223010CX | 747912-2 | 25 | Plug | 3.29 | 2.95 | 2.19 |
| 223028CX | 747916-2 | 37 | Plug | 5.29 | 4.29 | 3.49 |
| 223052CX | 747905-2 | 9 | Receptacle | 2.35 | 2.09 | 1.55 |
| 223061CX | 747909-2 | 15 | Receptacle | 3.45 | 2.99 | 2.19 |
| 223079CX | 747913-2 | 25 | Receptacle | 4.10 | 3.69 | 2.72 |
| 223087CX | 747912-2 | 37 | Receptacle | 6.65 | 5.69 | 4.19 |

D-Sub Plastic Hoods for
AMP D-Sub Connectors

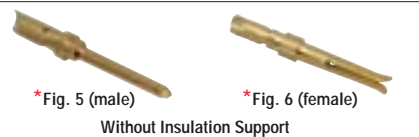
- Cable clamp type: clam shell
- Cable exit angle: straight
- Standard clam shell length
- Body material, cable support gate, and cable clamp: thermoplastic
- Screw material: steel
- Screw plating: zinc



| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|--------|--------|--------|
| 230893CX | 205729-1 | 9 | \$2.25 | \$1.85 | \$1.46 |
| 230906CX | 205730-1 | 15 | 2.34 | 2.10 | 1.85 |
| 230914CX | 205718-1 | 25 | 2.05 | 1.69 | 1.32 |
| 230922CX | 205731-1 | 37 | 2.88 | 2.63 | 2.29 |
| 230931CX | 205732-1 | 50 | 3.21 | 2.65 | 2.19 |

D-Sub Crimp and Solder Contacts

- Pin material: brass; socket material: phosphor bronze
- Contact plating
- *A: Select – gold flash over nickel on entire contact, with additional gold (.000030) on mating end;
- *B: Duplex – gold (.000030) on mating end, tin-lead on termination end, with entire contact nickel underplated;
- *C: gold flash over nickel on entire contact;
- *D: gold flash on mating end, tin-lead on termination end, with entire contact nickel underplated
- For use with AMP D-sub connectors (see left)
- Prepackaged: order in increments of 10, 100 or 1000

New Lower
Prices

Male Crimp Contacts

| Part No. | Product No. | Desc.* | AWG | 10 | 100 | 1000 |
|----------|-------------|--------|-------------|------|------|------|
| 223095CX | 1-66507-0 | 1C | 28-24 ... | \$24 | \$17 | \$12 |
| 223124CX | 66682-4 | 1A | 28-24 | .22 | .16 | .14 |
| 223108CX | 66507-9 | 1A | 28-24 | .18 | .12 | .09 |
| 223132CX | 745254-7 | 1C | 26-22 | .25 | .18 | .128 |
| 223141CX | 745254-6 | 1A | 26-22 | .25 | .20 | .15 |
| 223159CX | 1-745254-6 | 1B | 26-22 | .25 | .18 | .13 |
| 223167CX | 1-66506-0 | 1C | 24-20 | .16 | .15 | .12 |
| 223175CX | 205202-7 | 3C | 24-20 | .24 | .17 | .14 |
| 223183CX | 5-66506-9 | 1D | 24-20 | .21 | .15 | .13 |
| 223191CX | 66506-9 | 1A | 24-20 | .16 | .15 | .10 |
| 223204CX | 5-66506-7 | 1B | 24-20 | .24 | .17 | .12 |
| 223212CX | 745229-4 | 3A | 22-18 | .26 | .24 | .19 |

Female Crimp Contacts

| Part No. | Product No. | Desc.* | AWG | 10 | 100 | 1000 |
|----------|-------------|--------|-------------|------|------|------|
| 223221CX | 1-66505-0 | 2C | 28-24 ... | \$18 | \$12 | \$09 |
| 223239CX | 66683-4 | 2A | 28-24 | .17 | .15 | .14 |
| 223247CX | 745253-6 | 2A | 26-22 | .27 | .20 | .14 |
| 223255CX | 1-66504-0 | 2C | 24-20 | .17 | .15 | .11 |
| 223263CX | 205201-7 | 4C | 24-20 | .26 | .21 | .16 |
| 223271CX | 5-66504-7 | 2D | 24-20 | .16 | .12 | .10 |
| 223280CX | 205201-5 | 4A | 24-20 | .18 | .14 | .11 |
| 223298CX | 66504-9 | 2A | 24-20 | .17 | .15 | .13 |
| 223301CX | 6-66504-0 | 2B | 24-20 | .26 | .21 | .16 |

Male Solder Contact

| Part No. | Product No. | Desc.* | AWG | 10 | 100 | 1000 |
|----------|-------------|--------|-----------|------|------|------|
| 234982CX | 66570-3 | 5A | 28-24 ... | \$22 | \$12 | \$11 |

Female Solder Contact

| Part No. | Product No. | Desc.* | AWG | 10 | 100 | 1000 |
|----------|-------------|--------|-----------|-------|------|-------|
| 223319CX | 66569-3 | 6A | 18 (max.) | \$225 | \$18 | \$162 |

Jameco Special Values!

Sale items highlighted in yellow. Great quantity discounts highlighted in green.

D-Subminiature Connector Hoods



- Use with D-sub solder cup and housing style connectors (hardware included)

D Series: plastic hood with strain relief (gray)

MD Series: metal coated plastic hood w/ strain relief

MH Series: die-cast metal hood with strain relief

| Part No. | Mfr. Cross Ref. No. | Connector | 1 | 10 | 100 | 1000 |
|----------|---------------------|--------------------------------|-------|-------|-------|-------|
| 15721CX | DB9H | 9-pin 15085CX Plastic | \$.49 | \$.45 | \$.39 | \$.35 |
| 25620CX | MD9H | 9-pin 25620CX Metallized | .59 | .49 | .39 | .35 |
| 147740CX | MHDB9 | 9-pin 1.45 | 1.29 | 1.15 | .99 | |
| 15018CX | DA15H | 15-pin ..... .49 | .45 | .40 | .35 | |
| 25566CX | MDA15H | 15-pin ..... .56 | .44 | .36 | .31 | |
| 15085CX | DB25H | 25-pin ..... .45 | .39 | .35 | .32 | |
| 25603CX | MDB25H | 25-pin ..... .59 | .49 | .42 | .35 | |
| 15106CX | MHDB25 | 25-pin ... 1.39 | 1.19 | 1.09 | .89 | |
| 15456CX | DC37H | 37-pin ..... .59 | .55 | .45 | .39 | |
| 25611CX | MDC37H | 37-pin ..... .75 | .69 | .59 | .53 | |
| 15659CX | DD50H | 50-pin ..... .99 | .85 | .75 | .65 | |

25-Pin Dual Plastic Hood

Designed for custom applications requiring two D-sub connectors. Applications include custom jumper boxes and interconnects.



| Part No. | Description | 1 | 10 | 100 | 500 |
|----------|-------------------------|-------|-------|-------|-------|
| 34091CX | 25-pin, plastic dual .. | \$.95 | \$.85 | \$.75 | \$.59 |

4-40 Screw Hardware for D-Subminiature Connectors

4-40 x .187" Jack Screws and Standoffs



| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|---|-------|-------|-------|------|
| 108986CX | .252"L jack screw .. | \$.21 | \$.12 | \$.08 | |
| 169931CX | .275"L jack screw .. | .15 | .13 | .11 | |
| 172603CX | .315"L jack screw .. | .14 | .11 | .084 | |
| 102816CX | .435"L jack screw .. | .49 | .46 | .41 | .37 |
| 108986CX | .515"L jack screw .. | .55 | .50 | .45 | .40 |
| 125014CX | 4-40 x 1.65"L plastic beige thumbscrew .. | .39 | .35 | .28 | .20 |
| 175636CX | .187"L standoff .. | .15 | .13 | .096 | |
| 102795CX | .236"L (6mm) standoff .. | .21 | .15 | .10 | |

4-40 Screw Sets



102808CX: 4-40 screw (.30"L) and retainer set
16547CX: 4-40 x .187" jack screw (.31"L thread), washer, lock washer, and nut set

- Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Description | 10 | 100 | 1000 |
|----------|--------------------------|-------|-------|-------|
| 102808CX | Screw/retainer set | \$.35 | \$.30 | \$.20 |
| 16547CX | Screw/nut set | .31 | .25 | .17 |

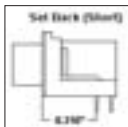
D-Subminiature Connectors

- Metal shells are tin-plated for improved EMI/RFI shielding
- Insulation resistance: minimum 1000MΩ at 500VDC
- Dielectric withstanding voltage: 1000V (one minute)

- Current rating: 1A to 5A
- High temperature thermoplastic
- Insulation material: PBT

Right Angle PC Mount Connectors

0.318" Set Back



- Short style
- Lead length: .138"
- Lead spacing: .115"
- Shell: metal
- Current rating: 1A

Quantity
SAVE

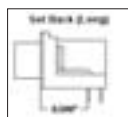


15149CX

| Part No. | Mfr. Cross Ref. No. | Cont. | Gender | 1 | 10 | 100 | 500 |
|----------|---------------------|-------|--------|-------|-------|-------|-------|
| 104942CX | DB9P318 | 9 | M | \$.55 | \$.50 | \$.45 | \$.38 |
| 104951CX | DB9S318 | 9 | F | ..60 | .55 | .49 | .45 |
| 71124CX | DA15P318 | 15 | M | ..69 | .59 | .55 | .49 |
| 77956CX | DA15S318 | 15 | F | ..79 | .69 | .65 | .45 |
| 168743CX | HDB15S318* | 15 | M | ..49 | .42 | .34 | .31 |
| 71466CX | HDB15S318* | 15 | F | ..59 | .53 | .42 | .31 |
| 15149CX | DB25P318 | 25 | M | ..79 | .65 | .55 | .45 |
| 15181CX | DB25S318 | 25 | F | ..89 | .79 | .72 | .65 |
| 265439CX | DSUB-25F | 25 | F | ..85 | .73 | .62 | .48 |
| 71706CX | DC37P318 | 37 | M | ..99 | .89 | .71 | .53 |
| 78182CX | DC37S318 | 37 | F | 1.15 | .95 | .69 | .49 |

*High Density

0.590" Set Back



- Lead length: .178"
- Lead spacing: .104"
- Current rating: 1A
- Shell: Metal
- Long style



104977CX

| Part No. | Mfr. Cross Ref. No. | Cont. | Gender | 1 | 10 | 100 |
|----------|---------------------|-------|--------|-------|-------|-------|
| 104969CX | DB9P590 | 9 | M | \$.99 | \$.83 | \$.72 |
| 104977CX | DB9S590 | 9 | F | ..89 | .79 | .75 |
| 104993CX | DA15S590 | 15 | F | ..99 | .85 | .59 |
| 189624CX | DB25P590† | 25 | M | ..49 | .45 | .39 |
| 105005CX | DB25P590 | 25 | M | ..99 | .89 | .79 |
| 105013CX | DB25S590 | 25 | F | 1.25 | 1.12 | .99 |

† Without board tabs

IDC Ribbon Cable Connectors

- Current rating: 1 amp
- Insulation material: glass-filled polyester
- Temp range: -55°C to +120°C
- Contact material: phosphor bronze
- Terminates with standard D-type connectors
- Shell: MD: Metal; CD: Plastic (see mfr. cross ref. no.)



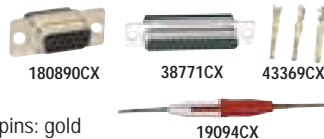
12431CX

| Part No. | Mfr. Cross Ref. No. | Cont. | Gender | 1 | 10 | 100 |
|----------|---------------------|-------|--------|--------|--------|--------|
| 109225CX | MD9P† | 9 | M | \$1.35 | \$1.25 | \$1.09 |
| 12503CX | CDB9P | 9 | M | 2.49 | 1.79 | 1.59 |
| 109217CX | MD9S† | 9 | F | 1.49 | 1.19 | 1.05 |
| 12520CX | CDB9S | 9 | F | 2.59 | 2.35 | 2.09 |
| 117381CX | MDA15P | 15 | M | 1.55 | 1.25 | .69 |
| 12298CX | CDA15P | 15 | M | 1.55 | 1.25 | .75 |
| 116011CX | MDA15S | 15 | F | 1.55 | 1.25 | .85 |
| 12319CX | CDA15S | 15 | F | 1.69 | 1.35 | .79 |
| 115983CX | MDB25P | 25 | M | 1.85 | 1.69 | 1.45 |
| 12335CX | CDB25P | 25 | M | 1.89 | 1.69 | 1.29 |
| 115975CX | MDB25S | 25 | F | 1.85 | 1.65 | 1.39 |
| 12431CX | CDB25S | 25 | F | 1.95 | 1.79 | 1.39 |
| 115991CX | MDC37P | 37 | M | 2.39 | 2.15 | 1.55 |
| 12466CX | CDC37P | 37 | M | 3.09 | 2.79 | 2.49 |
| 116003CX | MDC37S | 37 | F | 2.95 | 2.69 | 2.42 |
| 12482CX | CDC37S | 37 | F | 3.49 | 2.99 | 2.25 |

† Require flat cable w/ .0625" centers

Crimp-Type Connectors and Pins

- Connectors: metal shell; removable male/female crimp pins
- Male/female pins: gold plated contact; tinned crimp tail
- Insertion/extraction tool: exchangeable tips
- Use 99442CX, pg 187 to crimp 43377CX, 43369CX



* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|---|-------|-------|-------|-------|
| 73189CX | DB9 M housing | \$.49 | \$.39 | \$.31 | \$.19 |
| 73197CX | DB9 F housing | .49 | .39 | .31 | .19 |
| 73200CX | DA15 M housing | .59 | .53 | .48 | .43 |
| 73218CX | DA15 F housing | .62 | .59 | .47 | .35 |
| 180881CX | HDB15 M housing* | 1.09 | .98 | .78 | .58 |
| 180890CX | HDB15 F housing* | .89 | .79 | .72 | .65 |
| 38789CX | DB25 M housing | .56 | .44 | .36 | .21 |
| 38771CX | DB25 F housing | .55 | .44 | .31 | .21 |
| 43377CX | M crimp pin | .. | .10 | .09 | .08 |
| 43369CX | F crimp pin | .. | .08 | .07 | .06 |
| 185421CX | M crimp pin (180881CX) .. | .. | .055 | .045 | .04 |
| 185412CX | F crimp pin (180890CX) .. | .. | .055 | .05 | .04 |
| 19094CX | Insert/extract. tool for above pins (HT101) | 2.79 | 2.49 | 2.15 | 2.15 |

* High Density

Solder-Cup Connectors



- Compatible with 24 AWG communications and 22 AWG solid cable, pg 59
- Shell: Metal

| Part No. | Contacts | Gender | 1 | 10 | 100 | 1000 |
|----------|----------|--------|-------|-------|-------|-------|
| 15747CX | 9 | M | \$.56 | \$.44 | \$.36 | \$.24 |
| 15771CX | 9 | F | ..59 | .49 | .44 | .31 |
| 15077CX | 15HD* | M | ..69 | .59 | .49 | .31 |
| 164822CX | 15HD* | F | ..79 | .69 | .59 | .39 |
| 15034CX | 15 | M | ..55 | .49 | .42 | .29 |
| 15051CX | 15 | F | ..59 | .49 | .39 | .24 |
| 15114CX | 25 | M | ..99 | .89 | .79 | .71 |
| 15157CX | 25 | F | ..89 | .80 | .69 | .61 |
| 203799CX | 26HD* | M | ..65 | .58 | .52 | .52 |
| 203781CX | 26HD* | F | ..75 | .68 | .61 | .61 |
| 15472CX | 37 | M | ..99 | .85 | .79 | .49 |
| 15499CX | 37 | F | 1.19 | 1.05 | .85 | .49 |
| 15675CX | 50 | M | 1.65 | 1.49 | 1.35 | .99 |
| 15691CX | 50 | F | 1.79 | 1.39 | 1.32 | 1.19 |

*High Density

Straight PC Mount Connectors

- Non-removable contacts
- 125 Vrms
- Current rating: 5 amps
- Operating temperature: -65°F to +250°F
- Shell: Metal



| Part No. | Mfr. Cross Ref. No. | Cont. | Gender | 1 | 10 | 100 |
|----------|---------------------|-------|--------|-------|-------|-------|
| 111691CX | DB9PPCB | 9 | M | \$.55 | \$.45 | \$.32 |
| 15780CX | DB9SPCB | 9 | F | ..55 | .45 | .32 |
| 176760CX | DA15PPCB | 15 | M | ..49 | .39 | .27 |
| 176751CX | DA15SPCB | 15 | F | ..49 | .44 | .39 |
| 15122CX | DB25PPCB | 25 | M | ..65 | .59 | .42 |
| 15165CX | DB25SPCB | 25 | F | ..74 | .55 | .31 |
| 180021CX | DC37SPCB | 37 | F | ..85 | .72 | .54 |

.062" (1.57mm) Power Connectors

- Passive friction lock
- Polarized housing assures proper mating
- Voltage: 250V • Current: 5.0A
- Dielectric withstanding voltage: 1500VAC_{RMS}
- Contact retention to housing: 20 lbs. minimum
- Housing: nylon; UL94V-2
- Temperature range: -40°C to +105°C

Plugs



Without Mounting Ears

| Part No. | Product No. | Circuits | 1 | 10 | 100 |
|----------|--------------|----------|--------------|--------|--------|
| 224477CX | 03-06-2011* | 1 | \$.29 | \$.16 | \$.13 |
| 224485CX | 03-06-2023* | 2 |30 | .18 | .15 |
| 224493CX | 03-06-2032* | 3 |31 | .19 | .16 |
| 224506CX | 03-06-2042* | 4 |39 | .27 | .24 |
| 224514CX | 03-06-2044** | 4 |39 | .27 | .24 |
| 230244CX | 03-06-2055* | 5 |47 | .26 | .24 |
| 224522CX | 03-06-2061** | 6 |45 | .28 | .25 |
| 224531CX | 03-06-2092** | 9 |49 | .27 | .24 |
| 224549CX | 03-06-2122** | 12 |52 | .30 | .25 |

*In-line **Grid

With Mounting Ears

| Part No. | Product No. | Circuits | 1 | 10 | 100 |
|----------|--------------|----------|--------------|--------|--------|
| 229948CX | 03-06-2024* | 2 | \$.30 | \$.17 | \$.14 |
| 229964CX | 03-06-2033* | 3 |35 | .18 | .15 |
| 229981CX | 03-06-2041* | 4 |47 | .27 | .24 |
| 230009CX | 03-06-2043** | 4 |47 | .26 | .24 |
| 230025CX | 03-06-2054* | 5 |47 | .26 | .24 |
| 230041CX | 03-06-2062** | 6 |47 | .26 | .24 |
| 230068CX | 03-06-2091** | 9 |47 | .26 | .24 |
| 230084CX | 03-06-2121** | 12 |55 | .29 | .26 |

*In-line **Grid

Receptacles



Without Mounting Ears

| Part No. | Product No. | Circuits | 1 | 10 | 100 |
|----------|--------------|----------|--------------|--------|--------|
| 224397CX | 03-06-1011* | 1 | \$.29 | \$.16 | \$.13 |
| 224400CX | 03-06-1023* | 2 |30 | .18 | .15 |
| 224418CX | 03-06-1032* | 3 |31 | .19 | .16 |
| 224426CX | 03-06-1042* | 4 |39 | .27 | .24 |
| 224434CX | 03-06-1044** | 4 |39 | .27 | .24 |
| 230252CX | 03-06-1056* | 5 |55 | .35 | .31 |
| 224442CX | 03-06-1062** | 6 |45 | .28 | .25 |
| 224451CX | 03-06-1092** | 9 |49 | .27 | .24 |
| 224469CX | 03-06-1122** | 12 |52 | .30 | .25 |

*In-line **Grid

With Mounting Ears

| Part No. | Product No. | Circuits | 1 | 10 | 100 |
|----------|--------------|----------|--------------|--------|--------|
| 229956CX | 03-06-1022* | 2 | \$.31 | \$.16 | \$.14 |
| 229972CX | 03-06-1038* | 3 |32 | .17 | .15 |
| 229999CX | 03-06-1041* | 4 |49 | .26 | .23 |
| 230017CX | 03-06-1043** | 4 |49 | .26 | .23 |
| 230033CX | 03-06-1055* | 5 |59 | .49 | .36 |
| 230050CX | 03-06-1061** | 6 |47 | .26 | .23 |
| 230076CX | 03-06-1091** | 9 |47 | .26 | .23 |
| 230092CX | 03-06-1121** | 12 |49 | .33 | .30 |

*In-line **Grid

.093" (2.36mm) Power Connectors

- Passive friction lock
- Voltage: 250V
- Current: 12A per circuit
- Dielectric withstanding voltage: 1500VAC_{RMS}
- Contact retention to housing: 20 lbs. minimum
- Housing: nylon; UL94V-2
- Temperature range: -40°C to +105°C

Plugs



Without Mounting Ears

| Part No. | Product No. | Circuits | 1 | 10 | 100 |
|----------|--------------|----------|--------------|--------|--------|
| 224063CX | 03-09-2011* | 1 | \$.29 | \$.18 | \$.12 |
| 224071CX | 03-09-2022* | 2 |30 | .25 | .18 |
| 224080CX | 03-09-2032* | 3 |41 | .32 | .21 |
| 224098CX | 03-09-2042* | 4 |45 | .22 | .20 |
| 229825CX | 03-09-2049** | 4 |45 | .34 | .26 |
| 230261CX | 03-09-2057* | 5 |55 | .29 | .26 |
| 224101CX | 03-09-2062** | 6 |49 | .39 | .29 |
| 224119CX | 03-09-2092** | 9 |55 | .35 | .30 |
| 224127CX | 03-09-2121** | 12 |69 | .59 | .39 |

*In-line **Grid

With Mounting Ears

| Part No. | Product No. | Circuits | 1 | 10 | 100 |
|----------|--------------|----------|--------------|--------|--------|
| 230105CX | 03-09-2021* | 2 | \$.35 | \$.18 | \$.16 |
| 230121CX | 03-09-2031* | 3 |42 | .22 | .20 |
| 230148CX | 03-09-2041* | 4 |42 | .22 | .20 |
| 230164CX | 03-09-2040** | 4 |64 | .59 | .35 |
| 230181CX | 03-09-2061** | 6 |35 | .33 | .25 |
| 230201CX | 03-09-2091** | 9 |65 | .35 | .31 |
| 230228CX | 03-09-2122** | 12 |71 | .38 | .35 |

*In-line **Grid

Receptacles



Without Mounting Ears

| Part No. | Product No. | Circuits | 1 | 10 | 100 |
|----------|--------------|----------|--------------|--------|--------|
| 224135CX | 03-09-1011* | 1 | \$.29 | \$.09 | \$.08 |
| 224143CX | 03-09-1022* | 2 |30 | .25 | .18 |
| 224151CX | 03-09-1032* | 3 |44 | .25 | .16 |
| 224160CX | 03-09-1042* | 4 |46 | .25 | .22 |
| 229817CX | 03-09-1049** | 4 |46 | .33 | .25 |
| 230279CX | 03-09-1057* | 5 |59 | .49 | .32 |
| 224178CX | 03-09-1064** | 6 |49 | .23 | .20 |
| 224186CX | 03-09-1094** | 9 |69 | .59 | .39 |
| 224194CX | 03-09-1126** | 12 |75 | .49 | .39 |

*In-line **Grid

With Mounting Ears

| Part No. | Product No. | Circuits | 1 | 10 | 100 |
|----------|--------------|----------|--------------|--------|--------|
| 230113CX | 03-09-1027* | 2 | \$.35 | \$.17 | \$.15 |
| 230130CX | 03-09-1081* | 3 |48 | .24 | .22 |
| 230156CX | 03-09-1041* | 4 |40 | .23 | .17 |
| 230172CX | 03-09-1040** | 4 |48 | .25 | .23 |
| 230199CX | 03-09-1061** | 6 |49 | .26 | .25 |
| 230210CX | 03-09-1091** | 9 |62 | .33 | .30 |
| 230236CX | 03-09-1125** | 12 |62 | .33 | .30 |

*In-line **Grid

.062" (1.57mm) Contacts

- Durability: tin – 25 mating/un-mating cycles max.
- Contact: brass or phosphor bronze
- Tin plating
- Temperature range: -40°C to +105°C
- Prepackaged: order in increments of 10, 100 or 1000

Crimp-Type Contacts



| Part No. | Product No. | Gender | AWG | 10 | 100 | 1000 |
|----------|-------------|--------|-------|--------------|---------|---------|
| 224565CX | 02-06-2103 | M | 18-24 | \$.18 | \$.057 | \$.038 |
| 224581CX | 02-06-2132 | M | 24-30 |18 | .057 | .038 |
| 224557CX | 02-06-1103 | F | 18-24 |18 | .057 | .038 |
| 224573CX | 02-06-1132 | F | 24-30 |18 | .057 | .038 |

Solder-Tail Contacts



| Part No. | Product No. | Gender | 10 | 100 | 1000 |
|----------|-------------|--------|--------------|--------|---------|
| 227379CX | 02-06-8103 | Male | \$.18 | \$.11 | \$.066 |
| 227387CX | 02-06-7103 | Female |18 | .11 | .066 |

.093" (2.36mm) Contacts

- Durability: tin – 25 mating/un-mating cycles max.
- Contact: brass or phosphor bronze
- Tin plating
- Temperature range: -40°C to +105°C
- Prepackaged: order in increments of 10, 100 or 1000

Crimp-Type Contacts



| Part No. | Product No. | Gender | AWG | 10 | 100 | 1000 |
|----------|-------------|--------|-------|--------------|--------|--------|
| 224207CX | 02-09-2118 | M | 18-22 | \$.19 | \$.06 | \$.04 |
| 224223CX | 02-09-2103 | M | 14-20 |18 | .059 | .04 |
| 224215CX | 02-09-1119 | F | 18-22 |20 | .07 | .04 |
| 224231CX | 02-09-1104 | F | 14-20 |18 | .059 | .04 |

Solder-Tail Contacts



| Part No. | Product No. | Gender | 10 | 100 | 1000 |
|----------|-------------|--------|---------------|---------|---------|
| 224240CX | 02-09-2133 | Male | \$.149 | \$.129 | \$.091 |
| 224258CX | 02-09-1134 | Female |20 | .14 | .09 |

Hand Crimp Tool

This tool is designed to crimp terminals, strip and cut wires, and cut bolts. Cuts and strips wires from 18-30 AWG. For Molex crimp pin terminals with .062", .093" diameters and KK® series on opposite page.



- Length: 8.3"L • Weight: 0.5 lbs.

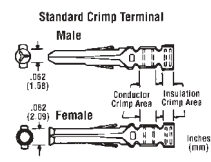
| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------------|---------|
| 227491CX | W-HT-1921 | \$14.99 | \$13.99 |

.062" Power Connector Kit

This assortment kit contains mating sets of housings and pins.

- Voltage: 250VAC • Current: 5A
- Temperature range: -40°C to +105°C

Includes: 3 ea. 2-pin plugs and 2-pin receptacles, 8 ea. male contacts and 8 ea. female contacts.



| Part No. | Product No. | Description | 1 | 10 | 50 |
|----------|-------------|-------------|--------|--------|--------|
| 142113CX | 1625-2 | Kit | \$5.69 | \$5.15 | \$4.59 |

.093" Power Connector Kits

These assortment kits contain mating sets of housings and pins.

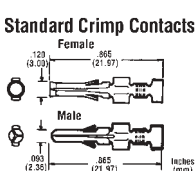
- Voltage: 250VAC
- Temperature range: -40°C to +105°C

142181CX: • 3 ea. 2-pin plugs & receptacles, 8 ea. female & male contacts • Current: 12A

142201CX: • 2 ea. 4-pin plugs & receptacles, 10 ea. female & male contacts • Current: 9A

142228CX: • 2 ea. 6-pin plugs & receptacles, 14 ea. female & male contacts • Current: 9A

Includes: Male and female tin-plated standard brass .010" pins; 18-22 AWG crimp size wire



| Part No. | Product No. | Description | 1 | 10 | 50 |
|----------|-------------|-------------|--------|--------|--------|
| 142181CX | 1545 | Kit | \$4.95 | \$4.49 | \$3.95 |
| 142201CX | 1490 | Kit | 5.69 | 5.15 | 4.65 |
| 142228CX | 1261 | Kit | 5.25 | 4.75 | 3.95 |

Extraction Tools for Molex Connectors

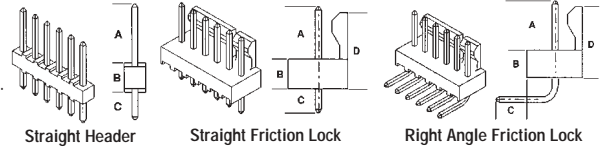


| Part No. | Product No. | AWG | 1 | 10 |
|----------|-------------|-------|---------|---------|
| 142156CX | W-HT-2285 | 18-30 | \$14.49 | \$13.49 |
| 227467CX | W-HT-2023 | 18-30 | 11.99 | 10.99 |
| 142236CX | W-HT-2038 | 14-30 | 14.49 | 13.49 |
| 227395CX | W-HT-2054 | 14-30 | 11.99 | 10.99 |
| 236128CX | W-HT-1884 | 22-30 | 9.99 | 8.99 |
| 234940CX | 11-03-0022 | 22-30 | 14.99 | 12.99 |

Find more products on our website.
www.Jameco.com

KK® Series .100" (2.54mm) Male Headers

- Voltage: 250V • Current: 4.0A
- Contact resistance: 20mΩ max.
- Dielectric withstanding voltage: 1500V
- Insulation resistance: 50,000MΩ min.
- Housing: nylon, UL94V-0
- Contact: brass, 0 – 6.4mm (0.25") square
- Durability: tin – 25 cycles max.; gold – 100 cycles max.



Straight Headers (Tin)

- Dimensions: (A) .295"; (B) .130"; (C) .135"

*Prepackaged: order in increments of 10 or 100

| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|--------|--------|--------|
| 232178CX | 22-03-2021 | 2 |* | \$1.10 | \$0.09 |
| 232186CX | 22-03-2031 | 3 |* | .16 | .14 |
| 232194CX | 22-03-2041 | 4 |* | .21 | .19 |
| 232207CX | 22-03-2051 | 5 | ..... | .29 | .24 |
| 232215CX | 22-03-2061 | 6 | ..... | .34 | .27 |
| 232223CX | 22-03-2081 | 8 | ..... | .40 | .33 |
| 232231CX | 22-03-2101 | 10 | ..... | .46 | .37 |
| 232240CX | 22-03-2121 | 12 | ..... | .56 | .45 |

Straight Friction Lock Headers (Tin)

- Dimensions: (A) .295"; (B) .125"; (C) .140"; (D) .322"

| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|-------|-------|-------|
| 232266CX | 22-23-2021 | 2 | ..... | \$2.9 | \$2.3 |
| 232274CX | 22-23-2031 | 3 | ..... | .35 | .30 |
| 232282CX | 22-23-2041 | 4 | ..... | .42 | .36 |
| 232291CX | 22-23-2051 | 5 | ..... | .49 | .42 |
| 232303CX | 22-23-2061 | 6 | ..... | .55 | .48 |
| 232311CX | 22-23-2071 | 7 | ..... | .63 | .55 |
| 232320CX | 22-23-2081 | 8 | ..... | .72 | .63 |
| 232338CX | 22-23-2091 | 9 | ..... | .76 | .66 |
| 232346CX | 22-23-2101 | 10 | ..... | .80 | .70 |
| 232354CX | 22-23-2121 | 12 | ..... | .95 | .83 |

Right Angle Friction Lock Headers (Tin)

- Dimensions: (A) .260"; (B) .125"; (C) .141"; (D) .322"

| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|-------|-------|-------|
| 233437CX | 22-05-3021 | 2 | ..... | \$4.2 | \$3.6 |
| 233445CX | 22-05-3031 | 3 | ..... | .56 | .49 |
| 233453CX | 22-05-3041 | 4 | ..... | .71 | .61 |
| 233461CX | 22-05-3051 | 5 | ..... | .77 | .67 |
| 233470CX | 22-05-3061 | 6 | ..... | .85 | .74 |
| 233488CX | 22-05-3071 | 7 | ..... | .99 | .79 |
| 233496CX | 22-05-3081 | 8 | ..... | 1.03 | .83 |
| 233509CX | 22-05-3101 | 10 | ..... | 1.08 | .94 |
| 233517CX | 22-05-3121 | 12 | ..... | 1.19 | .99 |

Straight Friction Lock Headers (Gold)

- Dimensions: (A) .295"; (B) .125"; (C) .140"; (D) .322"

| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|-------|-------|-------|
| 233584CX | 22-11-2022 | 2 | ..... | \$5.4 | \$4.6 |
| 233592CX | 22-11-2032 | 3 | ..... | .85 | .74 |
| 233605CX | 22-11-2042 | 4 | ..... | .87 | .76 |
| 233613CX | 22-11-2052 | 5 | ..... | 1.22 | 1.06 |
| 233621CX | 22-11-2062 | 6 | ..... | 1.34 | 1.17 |
| 233630CX | 22-11-2072 | 7 | ..... | 1.55 | 1.36 |
| 233648CX | 22-11-2082 | 8 | ..... | 1.62 | 1.42 |
| 233656CX | 22-11-2102 | 10 | ..... | 2.02 | 1.77 |
| 233664CX | 22-11-2122 | 12 | ..... | 2.41 | 2.12 |

Right Angle Friction Lock Headers (Gold)

- Dimensions: (A) .260"; (B) .125"; (C) .141"; (D) .322"

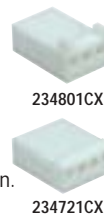
| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|-------|-------|-------|
| 233672CX | 22-12-2024 | 2 | ..... | \$8.9 | \$7.7 |
| 233681CX | 22-12-2034 | 3 | ..... | 1.15 | .99 |
| 233699CX | 22-12-2044 | 4 | ..... | 1.36 | 1.19 |
| 233701CX | 22-12-2054 | 5 | ..... | 1.50 | 1.31 |
| 233710CX | 22-12-2064 | 6 | ..... | 1.64 | 1.43 |
| 233728CX | 22-12-2084 | 8 | ..... | 1.86 | 1.51 |

Corporate Customers

Opening an account is easy!!
Call 1-800-831-4242
for details today.

KK® Series .100" (2.54mm) Female Housing and Crimp Contacts

- Voltage: 250V
- Current: phosphor bronze – 4.0A max., brass – 2.5A max.
- Contact resistance: 20mΩ max.
- Dielectric withstanding volt.: 1500VAC
- Insulation resistance: 50,000MΩ
- Housing Material:**
- Contact insertion force: 1.5 lbs. max.
- Contact retention to housing: 8 lbs. min.
- Housing: nylon, UL94V-0
- Operating temperature: 0 to 75°C



Housing with Locking Ramp & Polarizing Ribs

| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|-------|-------|-------|
| 234798CX | 22-01-3027 | 2 | ..... | \$2.9 | \$1.7 |
| 234801CX | 22-01-3037 | 3 | ..... | .29 | .21 |
| 234819CX | 22-01-3047 | 4 | ..... | .31 | .27 |
| 234827CX | 22-01-3057 | 5 | ..... | .36 | .31 |
| 234835CX | 22-01-3067 | 6 | ..... | .42 | .36 |
| 234843CX | 22-01-3077 | 7 | ..... | .47 | .41 |
| 234851CX | 22-01-3087 | 8 | ..... | .54 | .47 |
| 234860CX | 22-01-3097 | 9 | ..... | .58 | .50 |
| 234878CX | 22-01-3107 | 10 | ..... | .65 | .55 |
| 234886CX | 22-01-3127 | 12 | ..... | .76 | .66 |

Housing with Locking Ramp

| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|-------|-------|-------|
| 234704CX | 22-01-2027 | 2 | ..... | \$2.9 | \$1.5 |
| 234712CX | 22-01-2037 | 3 | ..... | .29 | .20 |
| 234721CX | 22-01-2047 | 4 | ..... | .29 | .24 |
| 234739CX | 22-01-2057 | 5 | ..... | .33 | .28 |
| 234747CX | 22-01-2067 | 6 | ..... | .36 | .32 |
| 234755CX | 22-01-2087 | 8 | ..... | .47 | .41 |
| 234763CX | 22-01-2097 | 9 | ..... | .51 | .44 |
| 234771CX | 22-01-2107 | 10 | ..... | .57 | .49 |
| 234780CX | 22-01-2127 | 12 | ..... | .67 | .58 |

Crimp Contacts

- Accommodates 22 to 30 AWG
- Material: brass or phosphor bronze
- Insulation range: 0.062" (1.58mm) diameter max.
- Prepackaged: order in increments of 10, 100 or 1000

234923CX: Brass with tin plating
234931CX: Brass with 15μ select gold plating

| Part No. | Product No. | 10 | 100 | 1000 |
|----------|-------------|-------|--------|--------|
| 234923CX | 08-50-0114 | ..... | \$0.65 | \$0.48 |
| 234931CX | 08-55-0102 | ..... | .22 | .17 |



0.156" (3.96mm) Male Headers

- Voltage and current rating: 600VAC @ 7.0A
- Contact material/plating: copper alloy/tin
- UL94V-0 flammability rating
- 0.045" square posts
- Insulator material: polyester
- Solder tail material/plating: copper alloy/tin

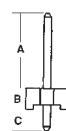
New Lower Prices



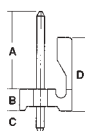
231491CX

231571CX

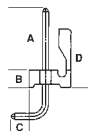
232418CX



Straight Header



Straight Friction Lock



Right Angle Friction Lock

Straight Friction Lock Headers

- Dimensions: (A) .450"; (B) .125"; (C) .125"; (D) .425"

*Prepackaged: order in increments of 10 or 100

| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|-----------|--------|--------|
| 231546CX | 640445-2 | 2 | * | \$.07 | \$.06 |
| 231554CX | 640445-3 | 3 | * | .075 | .065 |
| 231562CX | 640445-4 | 4 | * | .10 | .08 |
| 231571CX | 640445-5 | 5 | * | .14 | .10 |
| 231589CX | 640445-6 | 6 | * | .17 | .13 |
| 231597CX | 640445-7 | 7 | * | .18 | .15 |
| 231600CX | 640445-8 | 8 | * | .23 | .17 |
| 231626CX | 1-640445-0 | 10 |31 | .24 | .19 |

Right Angle Friction Lock Headers

- Dimensions: (A) .450"; (B) .125"; (C) .125"; (D) .425"

| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|--------------|--------|--------|
| 232362CX | 640389-2 | 2 | \$.29 | \$.26 | \$.23 |
| 232371CX | 640389-3 | 3 |44 | .39 | .34 |
| 232389CX | 640389-4 | 4 |59 | .52 | .46 |
| 232397CX | 640389-5 | 5 |74 | .65 | .57 |
| 232400CX | 640389-6 | 6 |80 | .71 | .62 |
| 232418CX | 640389-7 | 7 |93 | .83 | .73 |
| 232426CX | 640389-8 | 8 | 1.06 | .94 | .83 |
| 232434CX | 640389-9 | 9 | 1.19 | 1.06 | .92 |
| 232442CX | 1-640389-0 | 10 | 1.33 | 1.18 | .98 |

Straight Headers

- Dimensions: (A) .450"; (B) .125"; (C) .125"

| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|--------------|--------|--------|
| 231458CX | 640383-2 | 2 | \$.23 | \$.20 | \$.17 |
| 231466CX | 640383-3 | 3 |26 | .23 | .20 |
| 231474CX | 640383-4 | 4 |29 | .26 | .22 |
| 231482CX | 640383-5 | 5 |37 | .33 | .27 |
| 231491CX | 640383-6 | 6 |40 | .36 | .32 |
| 231503CX | 640383-7 | 7 |47 | .42 | .34 |
| 231511CX | 640383-8 | 8 |55 | .46 | .39 |
| 231520CX | 640383-9 | 9 |60 | .53 | .45 |
| 231538CX | 1-640383-0 | 10 |65 | .58 | .49 |

0.156" (3.96mm) Female Housing

- Voltage and current rating: 250VAC @ 6.5A maximum
- Material: nylon, unreinforced 94V-0
- Dielectric withstanding voltage: 2kVAC
- Insulation resistance: 1,000MΩ minimum
- Hole diameter: .054" (1.37mm)

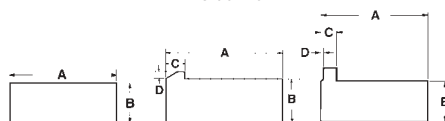


236259CX

236161CX

236347CX

Side View



Without Locking Ramp

With Locking Ramp

With Locking Ramp & Polarizing Tabs

With Locking Ramp

- Dimensions: (A) .660"; (B) .250"; (C) .100"; (D) .0365"

*Prepackaged: order in increments of 10 or 100

| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|---------------|---------|---------|
| 236144CX | 640250-2 | 2 | \$.152 | \$.134 | \$.094 |
| 236152CX | 640250-3 | 3 | * | .086 | .053 |
| 236161CX | 640250-4 | 4 |162 | .15 | .107 |
| 236179CX | 640250-5 | 5 |097 | .096 | .095 |
| 236187CX | 640250-6 | 6 |108 | .106 | .105 |
| 236195CX | 640250-7 | 7 |143 | .108 | .10 |
| 236208CX | 640250-8 | 8 |228 | .144 | .142 |
| 236216CX | 640250-9 | 8 |462 | .419 | .337 |
| 236224CX | 1-640250-0 | 10 |513 | .466 | .349 |

With Locking Ramp and Polarizing Tabs

- Dimensions: (A) .660"; (B) .250"; (C) .100"; (D) .019" ±.003"

*Prepackaged: order in increments of 10 or 100

| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|------------|---------|---------|
| 236321CX | 770849-2 | 2 | * | \$.114 | \$.105 |
| 236339CX | 770849-3 | 3 |228 | .14 | .08 |
| 236347CX | 770849-4 | 4 |20 | .173 | .15 |
| 236355CX | 770849-5 | 5 | * | .171 | .154 |
| 236363CX | 770849-6 | 6 |304 | .28 | .182 |
| 236371CX | 770849-7 | 7 |361 | .326 | .213 |
| 236380CX | 770849-8 | 8 |409 | .373 | .30 |
| 236398CX | 770849-9 | 9 |464 | .392 | .207 |
| 236401CX | 1-770849-0 | 10 |314 | .307 | .291 |

Without Locking Ramp

- Dimensions: (A) .660"; (B) .250"

*Prepackaged: order in increments of 10 or 100

| Part No. | Product No. | Positions | 1 | 10 | 100 |
|----------|-------------|-----------|------------|---------|---------|
| 236232CX | 640251-2 | 2 | * | \$.096 | \$.095 |
| 236241CX | 640251-3 | 3 |228 | .14 | .08 |
| 236259CX | 640251-4 | 4 |304 | .186 | .107 |
| 236267CX | 640251-5 | 5 | * | .114 | .106 |
| 236275CX | 640251-6 | 6 |257 | .251 | .15 |
| 236283CX | 640251-7 | 7 |418 | .326 | .213 |
| 236291CX | 640251-8 | 8 |447 | .373 | .243 |
| 236304CX | 640251-9 | 9 |462 | .419 | .337 |
| 236312CX | 1-640251-0 | 10 |266 | .25 | .243 |

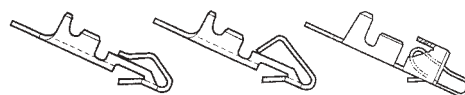
AMP: Quality Components for Less

AMP D-subminiature connectors, crimp and solder contacts, headers and D-sub hoods—the standard for quality around the globe. Get AMP top-quality brand-name products, along with all your other electronic components and tools, with one call to Jameco. Take a look at our selection on this page and page 74.

.156" Crimp Contacts

- Voltage rating: 250VAC
- Current rating: 10A maximum
- Low level resistance: 30mΩ max.
- Dielectric withstanding voltage: 2000VAC/1 min.
- Insulation resistance: 1000MΩ minimum
- Compatible with .045" square or round posts
- Material and finish:

- *A: brass, 0.012 bright tin plated
- *B: brass, 0.012 pre-tin plated
- *C: brass, 0.000030 gold over nickel plated
- *D: phosphor bronze, 0.012 bright tin plated
- *E: phosphor bronze, 0.000030 gold over nickel plated
- For use with .156" AMP housings (left below)
- Prepackaged: order in increments of 10, 100 or 500



* Fig. 1
(High-Force)

* Fig. 2
(Low-Force)

* Fig. 3
(Hooded - Dual Wipe)

| Part No. | Product No. | Desc.* | AWG | 10 | 100 | 500 |
|----------|-------------|--------|-------|----------|---------|---------|
| 248866CX | 640706-1 | 1A | 18-24 | \$.171 | \$.155 | \$.145 |
| 248874CX | 640706-2 | 1B | 18-24 |152 | .14 | .13 |
| 248882CX | 640707-1 | 2A | 18-24 |20 | .175 | .119 |
| 248891CX | 770258-1 | 2C | 18-24 |37 | .30 | .22 |
| 248903CX | 770522-1 | 3D | 18-24 |19 | .138 | .123 |
| 248911CX | 770258-2 | 3E | 18-24 |27 | .23 | .18 |



See page 74 for AMP D-Sub Connectors with Crimp and Solder Contacts.



We'll Send It Today!



Don't worry about backorders. Over 99% of our products are in stock! Just place your order by 6PM EST for same business day shipment.

.156" (3.9mm) Center Straight-Friction Lock Headers

- Ideal for AC and DC power distribution
- Voltage rating: 250VAC/VDC max.
- Current rating: 7 amps AC/DC
- Contact resistance: 20mΩ
- Temperature range: -25°C to +85°C
- Header material: pin - brass/tin-plated
- Base: nylon 66, UL94V-2



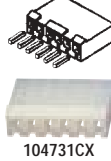
104811CX

* Prepackaged: order in increments of 10, 100, 1000

| Part No. | Cross Ref. No. | Pins | 1 | 10 | 100 | 1000 |
|----------|----------------|----------|----------|--------|--------|------|
| 104791CX | LMH4 | 4 | * \$.11 | \$.09 | \$.07 | |
| 104803CX | LMH5 | 5 | * .09 | .079 | .07 | |
| 104811CX | LMH6 | 6 | * .15 | .12 | .10 | |
| 104838CX | LMH8 | 8 | * .12 | .091 | .083 | |
| 104846CX | LMH10 | 10 | .22 | .17 | .16 | .14 |
| 235491CX | 8673-12-5 | 12 | .35 | .32 | .25 | .23 |

.156" (3.9mm) Center Housing Connectors

- Common to many power supplies carried by Jameco. Some power supplies (pgs 131-133) may require multiple connectors
- Housing material: nylon 66, UL94V-2
- Use with crimp pins, 78318CX, below



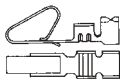
104731CX

* Prepackaged: order in increments of 10, 100, 1000

| Part No. | Cross Ref. No. | Pins | 1 | 10 | 100 | 1000 |
|----------|----------------|----------|----------|---------|--------|------|
| 176743CX | LCH2 | 2 | * \$.07 | \$.045 | \$.04 | |
| 104432CX | LCH3 | 3 | * .19 | .12 | .11 | |
| 104715CX | LCH4 | 4 | * .22 | .15 | .12 | |
| 104723CX | LCH5 | 5 | .24 | .22 | .16 | .12 |
| 104731CX | LCH6 | 6 | .33 | .30 | .24 | .15 |
| 104766CX | LCH10 | 10 | .39 | .32 | .28 | .23 |

.156" (3.9mm) Center Crimp Pin

- Use with .156 housings (above)
- Material: brass/tin plated
- Pin wire gauge: 18-24 AWG



Prepackaged: order in increments of 10, 100, 1000

| Part No. | Mfr. Cross Ref. No. | 10 | 100 | 1000 |
|----------|---------------------|--------|--------|--------|
| 78318CX | JS-5001-T | \$.11 | \$.08 | \$.07 |

.156" Female Crimp Pins

- Pin wire gauge: 18-22 AWG
- Material: tin-plated brass
- Use 99442CX crimping tool, pg 187



Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Mfr. Cross Ref. No. | 10 | 100 | 1000 |
|----------|---------------------|--------|--------|---------|
| 154093CX | LRPIN | \$.07 | \$.05 | \$.035 |



Crimping Tools
for above
Crimp Pins –
See page 187.



0.118"-Pitch ATX Power Connectors for Motherboards & Power Supplies

- Voltage rating: 250V AC/DC
- Current rating: 7A AC/DC
- Temperature range: -25°C to 85°C
- Insulation resistance: 1000MΩ min.
- Withstanding voltage: 1500V/min.

147379CX: ATX male 20-pin edge mount connector

• Material: nylon 66, UL-94V0

• Material of post: tin-plated brass • Diameter of post: .045"

147387CX: Housing connector • Material: nylon 66, UL-94V0

147395CX: ATX power terminal pins • Material: tin-plated brass



147379CX



147395CX



147387CX

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Description | L | W | H | Dia | Use With | 1 | 10 | 100 | 1000 |
|----------|----------------------------|------|------|------|-------|----------|--------|--------|--------|--------|
| 147379CX | 20-pin male connector | 1.7" | 0.4" | 0.6" | — | — | \$.59 | \$.53 | \$.48 | \$.43 |
| 147387CX | 20-pin housing connector | 1.7" | 0.4" | 0.8" | — | 147395CX | * | .19 | .17 | .15 |
| 147395CX | Power terminal pin, female | .59" | — | — | .068" | 147387CX | * | .12 | .11 | .10 |

0.098"-Pitch AT Power Connectors for Motherboards & Power Supplies

- Voltage rating: 250V AC/DC
- Current rating: 7A AC/DC
- Temperature range: -25°C to 85°C
- Insulation resistance: 1000MΩ minimum
- Withstanding voltage: 1500V/min.

78300CX: AMP60G male 6-pin PCB mount connector

• Material of post: tin-plated brass • Diameter of post: .09"

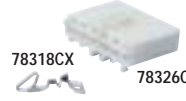
78326CX: AMP50G female 6-pin housing connector • Material: nylon

78318CX: AMP501T terminal pin

• Material: tin-plated brass



78300CX



78318CX

78326CX

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Description | L | W | H | Dia | Use With | 1 | 10 | 100 | 1000 |
|----------|----------------------------|------|------|------|------|----------|--------|--------|--------|--------|
| 78300CX | 6-pin male connector | .93" | .37" | .57" | — | — | \$.45 | \$.39 | \$.35 | \$.31 |
| 78326CX | 6-pin housing connector | .94" | .25" | .74" | — | 78300CX | .35 | .31 | .28 | .25 |
| 78318CX | Power terminal pin, female | .69" | — | — | .09" | 78326CX | * | .11 | .08 | .07 |

.156" (3.9mm) Center Housing Connectors and Crimp Contact

- Mating connectors for Mean Well LPS and LPP series power supplies (pgs 135-136)
- Current rating: 10A AC/DC
- Voltage rating: 250V AC/DC



215950CX



227416CX

227416CX:

- Material: brass
- Finish: tin-plated
- 18-22 AWG

* Prepackaged: order in increments of 10, 100, 1000

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|-----------------|--------|--------|--------|--------|
| 215950CX | 5 pos. housing | \$.35 | \$.32 | \$.28 | \$.26 |
| 215976CX | 8 pos. housing | .39 | .35 | .32 | .28 |
| 215968CX | 12 pos. housing | .49 | .44 | .39 | .35 |
| 227416CX | Crimp contact | .32 | .29 | .23 | .12 |

Extraction Tools for Crimp Pins

- Quickly and easily extract 0.093" locking pins from interlocking connectors
- Length: 5"
- See right for crimp pins, 42729CX & 42649CX



131887CX

131887CX: Male tool for 42729CX

131879CX: Female tool for 42649CX

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|--------|
| 131887CX | HT319C | \$10.95 | \$9.86 |
| 131879CX | HT319B | 10.95 | 9.86 |

Jameco's Low Price Guarantee

We'll match the print advertised
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0.2"-Pitch Power Connectors & Pins

Connector & Housing Specifications:

- Voltage rating: 250VAC (Mate-N-Lock 600VAC)
- Operating temperature: -55°C to +105°C

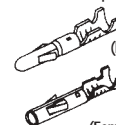
Crimp Pin Specifications:

- Material: tin plated brass • Current rating: 1.5 amps
- Wire size range: 18-24 AWG
- Use crimp tool P/N 99442CX, pg 187

For 5.25" Disk Drives and Power Supplies

42075CX & 42067CX Connector Housings:

- Keyed mating connectors
- External key bar indicates pin 1



42729CX
(Male for 42075CX)



109145CX



117567CX



42649CX
(Female for 42067CX)



42075CX
(Male)



42067CX
(Female)

- See far left for extraction tools, 131887CX & 131879CX

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Description | 10 | 100 | 1000 |
|----------|---|--------|--------|--------|
| 109145CX | 4-pin M vert. PCB mtg | \$.59 | \$.48 | \$.36 |
| 117567CX | 4-pin M PCB mounting, horizontal edge mount | .63 | .57 | .51 |
| 42075CX | 4-pin M housing | .12 | .11 | .10 |
| 42067CX | 4-pin F housing | .20 | .15 | .13 |
| 42729CX | M crimp pin for 42075CX | .10 | .07 | .06 |
| 42649CX | F crimp pin for 42067CX | .10 | .07 | .06 |

For 3.5" Disk Drives and Power Supplies

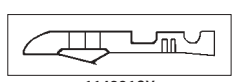
- 0.1" pitch



114930CX



114999CX



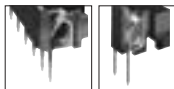
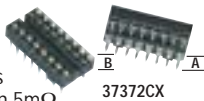
114921CX

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Description | 10 | 100 | 1000 |
|----------|---------------------------|--------|--------|--------|
| 114930CX | 4-pin F housing | \$.19 | \$.17 | \$.15 |
| 114921CX | F crimp pin for 114930CX | .11 | .095 | .08 |
| Part No. | Description | 1 | 100 | 1000 |
| 114999CX | 4-pin M rt. angle PCB mtg | \$.35 | \$.31 | \$.28 |

Solder Tail Low-Profile Sockets

- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Tin-plated contacts and tails
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Thru-hole lead length: .140" (A)
- Sleeve material: brass
- Body height: .188" (B)



Single Wipe

Quantity
SAVE

- Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Mfr. Cross Ref. No. | Pins | Width (in.) | 10 | 100 | 1000 |
|----------|---------------------|------|-------------|-------|--------|-------|
| 51570CX | 8LP | 8 | 0.3 | \$.07 | \$.06 | \$.05 |
| 37161CX | 14LP | 14 | 0.3 | \$.09 | \$.07 | \$.06 |
| 37372CX | 16LP | 16 | 0.3 | \$.10 | \$.09 | \$.06 |
| 38113CX | 18LP | 18 | 0.3 | \$.11 | \$.094 | \$.07 |
| 38607CX | 20LP | 20 | 0.3 | \$.12 | \$.10 | \$.07 |
| 39132CX | 22LP | 22 | 0.4 | \$.12 | \$.10 | \$.07 |
| 39378CX | 24SLP | 24 | 0.3 | \$.17 | \$.12 | \$.06 |
| 39335CX | 24LP | 24 | 0.6 | \$.16 | \$.14 | \$.09 |
| 40301CX | 28LP | 28 | 0.6 | \$.19 | \$.13 | \$.09 |
| 41110CX | 40LP | 40 | 0.6 | \$.19 | \$.17 | \$.12 |

Dual Wipe

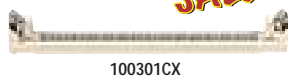
- Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Mfr. Cross Ref. No. | Pins | Width (in.) | 10 | 100 | 1000 |
|----------|---------------------|------|-------------|-------|--------|--------|
| 112192CX | 6LPD | 6 | 0.3 | \$.09 | \$.06 | \$.05 |
| 112205CX | 8LPD | 8 | 0.3 | \$.09 | \$.08 | \$.07 |
| 112213CX | 14LPD | 14 | 0.3 | \$.10 | \$.075 | \$.05 |
| 112221CX | 16LPD | 16 | 0.3 | \$.13 | \$.115 | \$.095 |
| 112230CX | 18LPD | 18 | 0.3 | \$.16 | \$.14 | \$.12 |
| 112248CX | 20LPD | 20 | 0.3 | \$.17 | \$.14 | \$.11 |
| 112281CX | 24SLPD | 24 | 0.3 | \$.14 | \$.13 | \$.09 |
| 112264CX | 24LPD | 24 | 0.6 | \$.19 | \$.16 | \$.12 |
| 112299CX | 28SLPD | 28 | 0.3 | \$.21 | \$.19 | \$.17 |
| 112272CX | 28LPD | 28 | 0.6 | \$.21 | \$.15 | \$.09 |
| 112301CX | 32LPD | 32 | 0.6 | \$.18 | \$.14 | \$.10 |
| 112310CX | 40LPD | 40 | 0.6 | \$.26 | \$.23 | \$.19 |
| 167396CX | 48LPD | 48 | 0.6 | \$.26 | \$.23 | \$.21 |
| 112326CX | 64LPD | 64 | 0.9 | \$.18 | \$.14 | \$.11 |

SIMM Sockets

SALE

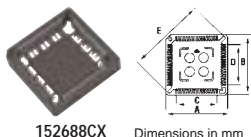
- Locking tabs
- Tinned contacts
- Memory module sockets
- Keyed mounting posts



| Part No. | Description | 1 | 10 | 100 | 500 |
|----------|-----------------------------|-------|-------|-------|-------|
| 100301CX | Single x 30-pin, vert. | \$.52 | \$.47 | \$.43 | \$.39 |
| 72531CX | Dual x 30-pin, vert. | \$.27 | \$.24 | \$.22 | \$.20 |
| 72426CX | Single x 72-pin vert. | \$.22 | \$.20 | \$.18 | \$.16 |

PLCC Surface Mount Sockets

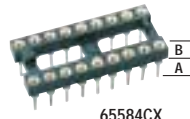
- Current: 1A
- Dielectric strength: 600VAC for 1 minute
- Insulator resistance: 5000MΩ minimum
- Temperature surface mount: -55 C/ +170 C



| Part No. | Mfr. Cross Ref. No. | Pins | 1 | 10 | 50 | 100 |
|----------|---------------------|------|--------|-------|-------|-------|
| 152688CX | PLCC44D | 44 | \$.75 | \$.68 | \$.54 | \$.40 |
| 152696CX | PLCC68D | 68 | \$.525 | \$.49 | \$.45 | \$.39 |

Machine Tooled Solder Tail Low-Profile Sockets

- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Multiple contact elements
- Material: beryllium copper or phosphor bronze
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Thru-hole lead length: .177" (A)
- Body height: .117" (B)

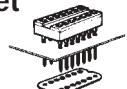


Quantity
SAVE

| Part No. | Mfr. Cross Ref. No. | Pins | Width (in.) | 1 | 10 | 100 | 1000 |
|----------|---------------------|------|-------------|--------|--------|--------|-------|
| 167003CX | 6MLPT | 6 | 0.3 | \$.29 | \$.26 | \$.18 | \$.16 |
| 51625CX | 8MLP | 8 | 0.3 | \$.25 | \$.22 | \$.19 | \$.17 |
| 37196CX | 14MLP | 14 | 0.3 | \$.42 | \$.38 | \$.33 | \$.30 |
| 37401CX | 16MLP | 16 | 0.3 | \$.47 | \$.43 | \$.37 | \$.34 |
| 65584CX | 18MLP | 18 | 0.3 | \$.55 | \$.49 | \$.43 | \$.39 |
| 38623CX | 20MLP | 20 | 0.3 | \$.59 | \$.55 | \$.45 | \$.39 |
| 192209CX | 224SMLP | 22 | 0.4 | \$.59 | \$.53 | \$.42 | \$.32 |
| 39386CX | 24SMLP | 24 | 0.3 | \$.65 | \$.59 | \$.47 | \$.35 |
| 39351CX | 24MLP | 24 | 0.6 | \$.72 | \$.65 | \$.52 | \$.39 |
| 114411CX | 28SMLP | 28 | 0.3 | \$.85 | \$.75 | \$.65 | \$.55 |
| 184680CX | 284SMLP | 28 | 0.4 | \$.89 | \$.80 | \$.64 | \$.48 |
| 40328CX | 28MLP | 28 | 0.6 | \$.83 | \$.75 | \$.65 | \$.59 |
| 105380CX | 32MLP | 32 | 0.6 | \$.95 | \$.85 | \$.75 | \$.65 |
| 41136CX | 40MLP | 40 | 0.6 | \$.19 | \$.105 | \$.79 | \$.69 |
| 42059CX | 48MLP | 48 | 0.6 | \$.129 | \$.118 | \$.94 | \$.71 |
| 200707CX | 64MLP | 64 | 0.9 | \$.135 | \$.125 | \$.115 | \$.99 |

Wire Wrap Socket I.D. Markers

- Quick identification of pin numbers
- Slips onto socket before wrapping
- Plastic
- Can easily write location, part number or function



| Part No. | Prod. No. | Pins | Width (in.) | 1 | 10 | 100 | 500 |
|----------|-----------|------|-------------|-------|-------|-------|-------|
| 51561CX | 8ID | 8 | 0.3 | \$.44 | \$.35 | \$.30 | \$.28 |
| 37145CX | 14ID | 14 | 0.3 | \$.35 | \$.31 | \$.28 | \$.24 |
| 37356CX | 16ID | 16 | 0.3 | \$.29 | \$.26 | \$.25 | \$.23 |
| 38105CX | 18ID | 18 | 0.3 | \$.49 | \$.45 | \$.39 | \$.35 |
| 38586CX | 20ID | 20 | 0.3 | \$.55 | \$.49 | \$.45 | \$.41 |
| 39327CX | 24ID | 24 | 0.6 | \$.59 | \$.52 | \$.43 | \$.38 |
| 40299CX | 28ID | 28 | 0.6 | \$.65 | \$.55 | \$.45 | \$.41 |
| 41101CX | 40ID | 40 | 0.6 | \$.89 | \$.79 | \$.69 | \$.65 |

PLCC Solder Tail Sockets

- Solder tail allows through-hole board patterns in .100" grid
- Accepts JEDEC type "A" plastic leaded chip (0.05" centers)
- Thru-hole lead length: .125"
- Body height: .375"



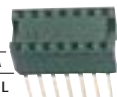
Quantity
SAVE

| Part No. | Mfr. Cross Ref. No. | Pins | 1 | 10 | 50 | 100 |
|----------|---------------------|------|--------|--------|-------|-------|
| 71263CX | G1P428 | 28 | \$.56 | \$.44 | \$.34 | \$.29 |
| 71811CX | G1P432 | 32 | \$.55 | \$.48 | \$.41 | \$.39 |
| 71618CX | G1P444 | 44 | \$.15 | \$.99 | \$.81 | \$.69 |
| 72442CX | G1P452 | 52 | \$.99 | \$.79 | \$.65 | \$.55 |
| 71968CX | G1P468 | 68 | \$.15 | \$.99 | \$.89 | \$.79 |
| 71976CX | G1P484 | 84 | \$.129 | \$.119 | \$.93 | \$.70 |

Level 1, 2 & 3 Wire Wrap Sockets

- Contact plating/leads: gold (WW) or tin (TWW); Dual Wipe
- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Thru-hole lead length: .315" (L1); .438" (L2); .638" (L3)
- Body height: .300" (A)

Quantity
SAVE



Gold (WW)

| Part No. | Mfr. Cross Ref. No. | Pins | Width (in.) | 1 | 10 | 100 | 500 |
|----------|---------------------|------|-------------|--------|--------|--------|--------|
| 51641CX | 8WW2 | 8 | 0.3 | \$.149 | \$.129 | \$.119 | \$.99 |
| 196832CX | 14WW1 | 14 | 0.3 | \$.15 | \$.101 | \$.83 | \$.62 |
| 37233CX | 14WW2 | 14 | 0.3 | \$.149 | \$.135 | \$.119 | \$.109 |
| 37479CX | 16WW2 | 16 | 0.3 | \$.175 | \$.159 | \$.143 | \$.129 |
| 196859CX | 18WW3 | 18 | 0.3 | \$.152 | \$.137 | \$.120 | \$.109 |
| 38674CX | 20WW2 | 20 | 0.3 | \$.225 | \$.199 | \$.182 | \$.165 |
| 39394CX | 24WW2 | 24 | 0.6 | \$.185 | \$.163 | \$.143 | \$.133 |
| 40352CX | 28WW2 | 28 | 0.6 | \$.219 | \$.199 | \$.175 | \$.160 |
| 41187CX | 40WW2 | 40 | 0.6 | \$.315 | \$.280 | \$.245 | \$.229 |

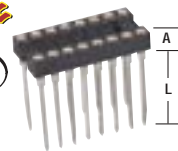
Tin (TWW)

| Part No. | Mfr. Cross Ref. No. | Pins | Width (in.) | 1 | 10 | 100 | 500 |
|----------|---------------------|------|-------------|--------|--------|--------|--------|
| 112660CX | 8TWW2 | 8 | 0.3 | \$.86 | \$.61 | \$.58 | \$.55 |
| 37217CX | 14TWW2 | 14 | 0.3 | \$.115 | \$.103 | \$.93 | \$.84 |
| 196841CX | 14TWW3 | 14 | 0.3 | \$.91 | \$.82 | \$.66 | \$.49 |
| 37436CX | 16TWW2 | 16 | 0.3 | \$.99 | \$.89 | \$.73 | \$.66 |
| 87636CX | 18TWW2 | 18 | 0.3 | \$.109 | \$.98 | \$.81 | \$.73 |
| 75379CX | 20TWW2 | 20 | 0.3 | \$.169 | \$.152 | \$.135 | \$.123 |
| 75416CX | 24TWW2 | 24 | 0.6 | \$.149 | \$.135 | \$.109 | \$.79 |
| 75424CX | 28TWW2 | 28 | 0.6 | \$.189 | \$.163 | \$.136 | \$.122 |
| 41179CX | 40TWW2 | 40 | 0.6 | \$.249 | \$.215 | \$.179 | \$.159 |

Level 3 Machine Tooled Wire Wrap Sockets

- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Material: beryllium copper or phosphor bronze
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Sleeve material: brass
- Body height: .115" (A)
- Thru-hole lead length: .365" (L2); .515" (L3)

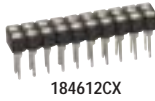
SALE
New Lower Prices



| Part No. | Mfr. Cross Ref. No. | Pins | Width (in.) | 1 | 10 | 100 | 500 |
|----------|---------------------|------|-------------|--------|--------|--------|--------|
| 94473CX | 8MSWW3 | 8 | 0.3 | \$.53 | \$.46 | \$.38 | \$.34 |
| 62050CX | 14MSWW3 | 14 | 0.3 | \$.93 | \$.80 | \$.67 | \$.60 |
| 37410CX | 16MSWW3 | 16 | 0.3 | \$.109 | \$.93 | \$.78 | \$.69 |
| 94481CX | 18MSWW3 | 18 | 0.3 | \$.109 | \$.93 | \$.78 | \$.74 |
| 38631CX | 20MSWW3 | 20 | 0.3 | \$.133 | \$.114 | \$.95 | \$.86 |
| 185324CX | 22MSWW3 | 22 | 0.3 | \$.135 | \$.119 | \$.109 | \$.99 |
| 192831CX | 224MSWW3 | 22 | 0.4 | \$.145 | \$.130 | \$.104 | \$.78 |
| 105371CX | 24MSWW3 | 24 | 0.3 | \$.149 | \$.129 | \$.108 | \$.97 |
| 94490CX | 24MSWW3 | 24 | 0.6 | \$.160 | \$.138 | \$.115 | \$.105 |
| 200715CX | 283MSWW3 | 28 | 0.3 | \$.169 | \$.143 | \$.119 | \$.107 |
| 40336CX | 28MSWW3 | 28 | 0.6 | \$.169 | \$.143 | \$.119 | \$.107 |
| 117057CX | 32MSWW3 | 32 | 0.6 | \$.219 | \$.199 | \$.179 | \$.149 |
| 94502CX | 40MSWW3 | 40 | 0.6 | \$.266 | \$.228 | \$.190 | \$.171 |
| 200723CX | 48MSWW3 | 48 | 0.6 | \$.299 | \$.269 | \$.239 | \$.215 |
| 200731CX | 64MSWW3 | 64 | 0.9 | \$.259 | \$.237 | \$.215 | \$.196 |

Machine Contact Dual-In-Line Female Sockets

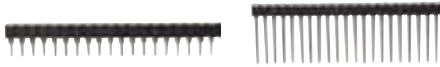
- 0.100" centers
- Solder tail contact: .114"L
- Pin sleeve: tin
- Contact clip: gold



| Part No. | Mfr. Cross Ref. No. | Pins | 1 | 10 | 100 |
|----------|---------------------|------|-------|-------|-------|
| 212855CX | SA101000 | 10 | \$.29 | \$.23 | \$.21 |
| 212863CX | SA121000 | 12 | .30 | .28 | .25 |
| 212871CX | SA141000 | 14 | .35 | .33 | .30 |
| 212880CX | SA161000 | 16 | .40 | .37 | .34 |
| 212898CX | SA181000 | 18 | .45 | .42 | .38 |
| 184612CX | SA201000 | 20 | .50 | .46 | .42 |
| 212901CX | SA221000 | 22 | .55 | .51 | .47 |
| 212919CX | SA241000 | 24 | .60 | .56 | .51 |
| 212927CX | SA321000 | 32 | .80 | .74 | .68 |
| 212935CX | SA481000 | 48 | 1.20 | 1.11 | 1.01 |

Machine Contact Single-In-Line Female Sockets

- Machine tooled
- Solder tail and wire wrap

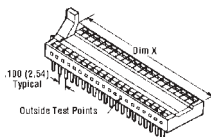


| Part No. | Description | 1 | 10 | 100 | 500 |
|----------|----------------------|-------|-------|-------|-------|
| 102200CX | Single x 10-pin | \$.25 | \$.22 | \$.20 | \$.18 |
| 192840CX | Single x 11-pin | .49 | .44 | .35 | .26 |
| 78641CX | Single x 30-pin | .89 | .80 | .68 | .61 |
| 175919CX | Single x 36-pin | 1.19 | 1.09 | .97 | .87 |
| 101282CX | Single x 20-pin WW2† | 1.49 | 1.35 | 1.09 | .80 |
| 104053CX | Single x 30-pin WW3* | 1.95 | 1.75 | 1.49 | 1.35 |

† Lead length: .435" (2) * Lead length: .575" (3)

ARIES® Low Profile ZIF Sockets

Provides a low cost solution for ZIF test socket requirements. It has a height of only .319" (8.10mm), and even with the handle in open position it measures just .554" (14.07mm).



| Part No. | Aries No. | Pins | Dim X | 1 | 10 | 100 |
|----------|-----------|------|-------|--------|--------|--------|
| 102744CX | 28-526 | 28 | 1.64" | \$5.49 | \$4.99 | \$4.49 |
| 102752CX | 40-526 | 40 | 2.24" | 6.95 | 6.39 | 5.75 |

ARIES® Universal ZIF Sockets

- Solder directly to PCB or plug directly into IC socket
- Screw mounting holes
- Accepts .300" to .600" IC centers x .10" spacing



| Part No. | Aries No. | Pins | 1 | 10 | 100 |
|----------|------------|------|--------|--------|--------|
| 103991CX | 24-6554-10 | 24 | \$7.49 | \$6.79 | \$5.99 |
| 104002CX | 28-6554-10 | 28 | 8.45 | 7.39 | 7.15 |
| 104011CX | 32-6554-10 | 32 | 9.95 | 8.49 | 8.29 |
| 104029CX | 40-6554-10 | 40 | 11.25 | 9.80 | 9.45 |

Low Profile IC Socket Kit

Includes 300 pcs. (10 types) Solder tail (Tin) IC Sockets

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|---------------------------|------------|---------|---------|
| 85075CX | 300 pcs. LP IC Socket kit | 5.5 | \$36.95 | \$33.25 |

.100" Male Headers (Gold)

- Solder to PC boards for instant plug-in access via shorting blocks, below
- Snap apart to fit your application
- Contact material: phosphor bronze • Current rating: 1 amp
- Contact area: gold • Temp. range: -55°C to +120°C
- .025" square posts on a .100" x .100" matrix
- Use with crimp connector housing, pg 82

*Prepackaged: order in increments of 10, 100 or 1000



| Part No. | Mfr. Cross Ref. No. | Contacts | 1 | 10 | 100 | 1000 |
|----------|---------------------|----------|-------|-------|-------|------|
| 108337CX | SMH02 | 2 | \$.16 | \$.14 | \$.13 | |
| 109575CX | SMH03 | 3 | .17 | .15 | .135 | |
| 117559CX | SMH04 | 4 | .17 | .15 | .135 | |
| 153699CX | SMH06 | 6 | .17 | .15 | .135 | |
| 153701CX | SMH08 | 8 | .20 | .17 | .15 | |
| 103392CX | SMH10 | 10 | .18 | .14 | .10 | |
| 103376CX | SMH17 | 17 | .16 | .14 | .13 | |
| 103368CX | SMH20 | 20 | .25 | .23 | .21 | |
| 202825CX | SMH22 | 22 | .25 | .23 | .21 | |
| 103350CX | SMH25 | 25 | .25 | .21 | .16 | |
| 103341CX | SMH30 | 30 | .35 | .31 | .28 | .25 |
| 68339CX | SMH36 | 36 | .42 | .38 | .34 | .29 |
| 160881CX | SMH40 | 40 | .49 | .44 | .40 | .36 |



| Part No. | Mfr. Cross Ref. No. | Contacts | 1 | 10 | 100 | 1000 |
|----------|---------------------|----------|-------|-------|-------|------|
| 115027CX | 923804DS | 4 | \$.10 | \$.09 | \$.07 | |
| 115035CX | 923806DS | 6 | .18 | .16 | .14 | |
| 109516CX | 923808DS | 8 | .18 | .16 | .14 | |
| 67820CX | 923810DS | 10 | .18 | .16 | .14 | |
| 203810CX | 923812DS | 12 | .60 | .55 | .49 | .44 |
| 118455CX | 923814DS | 14 | .45 | .40 | .36 | .33 |
| 109567CX | 923816DS | 16 | .55 | .49 | .45 | .39 |
| 203828CX | 923818DS | 18 | .65 | .59 | .55 | .49 |
| 53479CX | 923862DS | 20 | .59 | .55 | .48 | .43 |
| 203836CX | 923822DS | 22 | .70 | .63 | .50 | .38 |
| 203844CX | 923824DS | 24 | .70 | .65 | .59 | .49 |
| 53495CX | 923863DS | 26 | .70 | .55 | .40 | .29 |
| 203852CX | 923828DS | 28 | .75 | .69 | .55 | .39 |
| 203879CX | 923830DS | 30 | .75 | .68 | .54 | .40 |
| 203861CX | 923832DS | 32 | .75 | .68 | .54 | .40 |
| 53516CX | 923864DS | 34 | .65 | .59 | .53 | .45 |
| 203887CX | 923836DS | 36 | .80 | .72 | .58 | .43 |
| 203895CX | 923838DS | 38 | .80 | .72 | .58 | .43 |
| 53532CX | 923865DS | 40 | .65 | .55 | .39 | .25 |
| 53559CX | 923866DS | 50 | .60 | .55 | .49 | .45 |
| 68574CX | 923860DS | 60 | .70 | .65 | .59 | .55 |
| 103405CX | 923872DS | 72 | .85 | .75 | .69 | .59 |
| 117196CX | 923880DS | 80 | .90 | .80 | .75 | .65 |

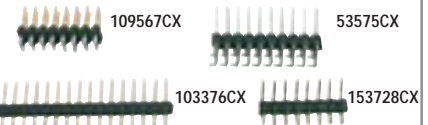
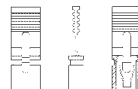
.100" Shorting Block w/ Handle

- Mates w/ .100" male headers, above
- Ratings:
 - Current: 3A
 - Accessible test point in handle
- Contact resistance: 20mΩ max.

Material:

- Plastic: PBT, glass filled
- Contact: phosphor bronze
- Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Description | 10 | 100 | 1000 |
|----------|----------------------|-------|-------|-------|
| 152670CX | .100" shorting block | \$.19 | \$.15 | \$.12 |



| Part No. | Mfr. Cross Ref. No. | Contacts | 1 | 10 | 100 | 1000 |
|----------|---------------------|----------|-------|-------|-------|-------|
| 153728CX | RMH08 | 8 | \$.45 | \$.40 | \$.30 | \$.25 |
| 103270CX | RMH36 | 36 | .75 | .64 | .58 | .41 |

.100" Right Angle Male Headers



| Part No. | Mfr. Cross Ref. No. | Contacts | 1 | 10 | 100 | 1000 |
|----------|---------------------|----------|-------|-------|-------|-------|
| 203908CX | 923804DR | 4 | \$.38 | \$.34 | \$.31 | \$.28 |
| 203916CX | 923806DR | 6 | .55 | .49 | .29 | .19 |
| 203924CX | 923808DR | 8 | .49 | .44 | .35 | .26 |
| 203932CX | 923810DR | 10 | .59 | .53 | .40 | .31 |
| 203941CX | 923812DR | 12 | .59 | .53 | .42 | .31 |
| 203959CX | 923814DR | 14 | .65 | .58 | .47 | .34 |
| 203967CX | 923816DR | 16 | .65 | .58 | .47 | .34 |
| 203975CX | 923818DR | 18 | .65 | .58 | .47 | .34 |
| 53575CX | 923820DR | 20 | .59 | .53 | .48 | .43 |
| 203983CX | 923822DR | 22 | .65 | .58 | .47 | .34 |
| 203991CX | 923824DR | 24 | .65 | .58 | .47 | .34 |
| 53583CX | 923826DR | 26 | .69 | .55 | .41 | .29 |
| 204003CX | 923828DR | 28 | .69 | .62 | .50 | .36 |
| 204011CX | 923830DR | 30 | .75 | .68 | .54 | .40 |
| 204020CX | 923832DR | 32 | .75 | .68 | .54 | .40 |
| 204038CX | 923834DR | 34 | .75 | .68 | .54 | .40 |
| 204046CX | 923836DR | 36 | .75 | .68 | .54 | .40 |
| 204054CX | 923838DR | 38 | .75 | .68 | .54 | .40 |
| 53604CX | 923840DR | 40 | .85 | .75 | .57 | .50 |
| 53612CX | 923850DR | 50 | .85 | .75 | .57 | .50 |
| 103413CX | 923872DR | 72 | 1.15 | .99 | .89 | .75 |
| 139563CX | 923880DR | 80 | 1.35 | 1.19 | 1.09 | .99 |

.100" and 2mm Shorting Blocks

- Mates to .025" square posts on .100" centers
- Shorting socket jumper to address or code strip line plugs
- Mate with male headers, above
- Pin material: phosphor bronze

Open: open on top to allow for a test point

Closed: closed - functionally they are the same

119263CX: 2mm shorting block (for disk drives)

- Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Description | 10 | 100 | 1000 |
|----------|---------------------------|-------|-------|-------|
| 22023CX | Top open, black (.100") | \$.12 | \$.09 | \$.06 |
| 119263CX | Top open, black (2mm) | .15 | .13 | .096 |
| 112424CX | Top open, blue (.100") | .12 | .09 | .06 |
| 112416CX | Top open, red (.100") | .12 | .09 | .06 |
| 19140CX | Top closed, black (.100") | .12 | .09 | .06 |
| 112441CX | Top closed, blue (.100") | .12 | .09 | .06 |
| 112432CX | Top closed, red (.100") | .16 | .14 | .10 |



.100" Non-Polarized Connector Housings and Crimp Pins

- Mates with .025" square post on pattern of .100" centers (male headers, see pg 81)
- Current rating: 1A • Pin material: brass/tin plated
- Pin wire gauge: 26-22 AWG • Plastic
- Temperature rating: -55°C to +105°C
- Use 159265CX pin crimper, pg 187 and 100765CX below

* Prepackaged: order in increments of 10, 100 or 1000

| | | Single Row | | | | | |
|----------|---------------------|------------|-----------|-------|-------|-------|--|
| | | 103190CX | 100765CX | | | | |
| Part No. | Mfr. Cross Ref. No. | Contacts | 1 | 10 | 100 | 1000 | |
| 100811CX | SCH2 | 2 | * | \$.23 | \$.21 | \$.17 | |
| 157382CX | SCH3 | 3 | * | .24 | .22 | .18 | |
| 100802CX | SCH4 | 4 | * | .25 | .23 | .19 | |
| 163686CX | SCH5 | 5 |30 | .27 | .25 | .22 | |
| 103211CX | SCH6 | 6 |34 | .31 | .27 | .21 | |
| 103202CX | SCH8 | 8 |39 | .35 | .29 | .25 | |
| 103190CX | SCH10 | 10 |42 | .39 | .36 | .31 | |
| 103181CX | SCH20 | 20 |49 | .45 | .39 | .35 | |
| 103157CX | SCH36 | 36 |49 | .45 | .39 | .35 | |
| 100765CX | FCH1 | Female pin | * | .11 | .09 | .06 | |
| 143537CX | MCH1 | Male pin | * | .15 | .135 | .12 | |

| | | Double Row | | | | | |
|----------|---------------------|------------|-------------|-------|-------|-------|--|
| | | 143537CX | 103253CX | | | | |
| Part No. | Mfr. Cross Ref. No. | Contacts | 1 | 10 | 100 | 1000 | |
| 103253CX | DCH8 | 8 | \$.59 | \$.53 | \$.45 | \$.39 | |
| 157420CX | DCH10 | 10 |69 | .62 | .55 | .49 | |
| 157438CX | DCH14 | 14 |73 | .71 | .69 | .59 | |
| 103237CX | DCH16 | 16 |79 | .71 | .57 | .43 | |
| 103229CX | DCH20 | 20 |99 | .89 | .79 | .69 | |
| 157462CX | DCH40 | 40 | 1.09 | .99 | .89 | .75 | |
| 157471CX | DCH50 | 50 |65 | .59 | .47 | .35 | |
| 100765CX | FCH1 | Female pin | * | .11 | .09 | .06 | |
| 143537CX | MCH1 | Male pin | * | .15 | .135 | .12 | |

USB-A & B Connectors and Pins 1.0 and 2.0



- 174060CX: USB-A & B (2.0) Male Connector**
 - 3-part housing: tin plate over brass and glass fiber
 - 4-pins (P/N 159724CX) required per USB connector
- 161023CX/230949CX/230957CX: USB-A & B (1.0 & 2.0) Female Connectors**
 - PC mount right angle with board locks
- 230965CX: Male Crimp Pin**
 - Pin for P/N 174060CX (4 required) • Contact: gold
 - Use P/N 159265CX for crimping tool, pg 187

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|----------------------------|-------|-------|-------|-------|
| 161023CX | USB-A 1.0 conn. (F) | \$.79 | \$.69 | \$.62 | \$.56 |
| 230949CX | USB-A 2.0 conn. (F) | .99 | .85 | .55 | .42 |
| 174060CX | USB-B 2.0 conn. (M) | .79 | .69 | .62 | .56 |
| 230957CX | USB-B 2.0 conn. (F) | .99 | .85 | .55 | .42 |
| 230965CX | Crimp pin (M) for 2.0 | * | .125 | .09 | .065 |

.100" Low Profile Keyed Shrouded Headers and Connector

CD-ROM 4-Pin Headers and Connector



- Voltage rating: 250V AC/DC
- Current rating: 3A AC/DC
- Insulation resistance: 1000MΩ min.
- Connector material: PBT, 30% glass
- Header material: PBT + 30% glass
- Withstanding voltage: 1000V AC/minute
- Pin material: tin-plated brass
- Recommended crimp tool P/N 99442CX, pg 187

* Prepackaged: order in increments of 10, 100 or 1000

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|------------------------|-------|-------|-------|-------|
| 152741CX | Straight header | \$.45 | \$.39 | \$.35 | \$.29 |
| 152725CX | Right angle header ... | .55 | .50 | .40 | .30 |
| 152733CX | Single w/ latch† | .43 | .37 | .22 | .16 |
| 181673CX | Female pins | * | .11 | .08 | .06 |

† P/N 152733CX requires 4 pins (P/N 181673CX)

.100" DIP Header Plugs

- Gold-plated leads
- Header plugs: keyed corner to indicate pin 1
- U-shaped pin termination for easy component attachment
- Lead length: .188"
- 0.1" spacing between leads

| Part No. | Mfr. Cross Ref. No. | Width | Pins | 1 | 10 | 100 |
|----------|---------------------|-------|------|-------------|-------|-------|
| 104336CX | 8HP | 0.3" | 8 | \$.79 | \$.67 | \$.57 |
| 37129CX | 14HP | 0.3" | 14 | 1.19 | .99 | .89 |
| 37330CX | 16HP | 0.3" | 16 | 1.35 | 1.25 | 1.09 |
| 38578CX | 20HP | 0.3" | 20 | 1.49 | 1.35 | 1.19 |

.100" IDC DIP Flat Cable Plugs

- Mates with standard 14, 16, 20, 24, 26, 28 & 40-pin DIP sockets with 0.1" spacing
- Plastic with gold-plated contacts
- Uses 28 AWG flat ribbon cable, pg 59
- Current rating: 1 amp

| Part No. | Mfr. Cross Ref. No. | Width | Contacts | 1 | 10 | 100 | 500 |
|----------|---------------------|-------|----------|-------------|-------|-------|-------|
| 42657CX | 609-14 | 0.3" | 14 | \$.49 | \$.40 | \$.35 | \$.29 |
| 42673CX | 609-16 | 0.3" | 16 |55 | .45 | .35 | .30 |
| 104096CX | 609-20 | 0.3" | 20 |69 | .62 | .55 | .49 |
| 42690CX | 609-24 | 0.6" | 24 |79 | .71 | .64 | .59 |
| 99670CX | 609-28 | 0.6" | 28 |89 | .80 | .72 | .59 |
| 42711CX | 609-40 | 0.6" | 40 | 1.15 | 1.05 | .95 | .85 |

Card-Edge Connectors

- Fits all PC boards • .054" to .070" thick

Solder Eyelet .140" Spacing Between Rows

- Contact centers: .156" • With mounting ears

| Part No. | Position | Contacts | 1 | 10 | 100 |
|----------|----------|------------|--------|--------|--------|
| 39116CX | 22/44 | Gold | \$2.95 | \$2.65 | \$2.38 |

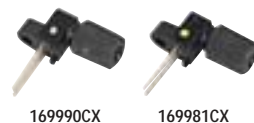
Solder Tail .200" Spacing Between Rows

- Contact centers: .100"
- Without mounting ears

| Part No. | Position | Contacts | 1 | 10 | 100 |
|----------|----------|-------------------|-------|-------|-------|
| 40694CX | 31/62 | Tin (PC/AT) | \$.93 | \$.82 | \$.65 |
| 42091CX | 49/98 | Tin (AT) | .89 | .59 | .39 |

Fiber Optic Infrared Detectors

- Mates with standard 1000µm core jacketed plastic fiber cable
- Connector-less fiber termination and connection
- Inexpensive plastic connector housing
- Compatible with LED emitters, below
- Interference-free transmission from light-tight housing
- Internal micro-lens for efficient coupling



| Part No. | Color Dot | Peak Wavelength Sensitivity | 1 | 10 |
|----------|-----------|-----------------------------|--------|--------|
| 169990CX | Yellow | 800nm | \$5.75 | \$4.69 |
| 169981CX | White | 850nm | 7.99 | 7.35 |

Infrared and Visible Light Fiber Optic LED Emitters

- Mates with standard 1000µm core jacketed plastic fiber cable (recommend P/N 171272CX, below)
- Internal micro-lens for efficient coupling
- Connector-less fiber termination and connection
- Interference-free transmission from light-tight housing
- Excellent linearity
- Compatible with fiber optic photo detectors, above



Peak Wavelength Sensitivity:

169957CX: 950nm, Vf=1.7V max @ 50mA

169965CX: 660nm, Vf=1.8V max @ 50mA

169949CX: 660nm, Vf=1.8V max @ 50mA

| Part No. | Description | Color Dot | 1 | 10 |
|----------|----------------------|------------|--------|--------|
| 169957CX | Fiber optic LED E91A | Blue | \$2.99 | \$2.49 |
| 169965CX | Fiber optic LED E96 | Pink | 5.35 | 4.89 |
| 169949CX | Fiber optic LED E97 | Red | 5.75 | 4.75 |

10' Fiber Optic Cable

- 1000µm core jacketed plastic fiber optic cable (10')

| Part No. | Description | 1 | 10 |
|----------|-----------------------------|--------|--------|
| 171272CX | 10' fiber optic cable | \$6.95 | \$6.25 |

For Fiber Optic Kits, see page 237.



Phone 1-800-831-8242
Online www.Jameco.com

Order Anytime 24x7x365

Fax 1-800-237-6948

Male & Female Power Jacks

- Use with mating power plugs, below
- Dimensions do not include barrel

| Mounting | Code |
|-------------|------|
| Panel | C |
| PCB | D |
| Panel & PCB | E |
| Cable | F |

| Terminals | Code |
|---------------|------|
| Solder eyelet | A |
| PC board | B |



Type 1



Type 2



Type 3



Type 4



Type 5



Type 6



Type 7



Type 8



Type 9



Type 10

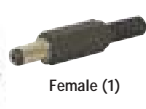
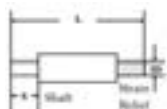
| Part Number | Mfr. Cross Ref. No. | Dimensions H x W x D (mm) | Type/ Mount | Circuit/ Terminal | Mating Plug (below) | Pricing | | | |
|---------------------|---------------------|------------------------------|----------------|----------------------|------------------------|---------|--------|--------|--------|
| | | | | | | 1 | 10 | 100 | 1000 |
| 1.3 mm Male Jacks | | | | | | | | | |
| 101194CX | PP024 | 6.0 x 6.0 x 9.0 | 8/D | 1/B | 1.3 mm female | \$.63 | \$.49 | \$.44 | \$.39 |
| 265421CX | 420ECS | 7.3 x 5.0 x 11.5 | 1/D | 1/B | 1.3 mm female | .69 | .55 | .49 | .45 |
| 2.1 mm Male Jacks | | | | | | | | | |
| 101178CX | PP014 | 10.9 x 9.0 x 14.5 | 1/D | 1/A | 2.1 mm female | \$.49 | \$.44 | \$.39 | \$.35 |
| 137672CX | PP013 | 10.9 x 9.0 x 14.5 | 5/D | 3/A | 2.1 mm female | .49 | .44 | .35 | .26 |
| 151589CX | DPJ-021A | 13.0 x 12.6 Dia. | 7/C | 1/A | 2.1 mm female | 1.09 | .93 | .70 | .65 |
| 151554CX | DPJ-026 | 15.1 x 8.0 Dia. | 6/E | 1/A | 2.1 mm female | 1.49 | 1.25 | 1.05 | .89 |
| 159610CX | PJ1014A | 35.8 x 12.6 Dia. | 10/F | 3/A | 2.1 mm female | 1.49 | 1.25 | 1.09 | .89 |
| 2.5 mm Male Jacks | | | | | | | | | |
| 207714CX | HEC0470 | 11.0 x 9.0 x 14.5 | 1/D | 1/B | 2.5 mm female | \$.45 | \$.35 | \$.29 | \$.25 |
| 101186CX | PP014A | 11.0 x 9.0 x 14.5 | 1/D | 1/A | 2.5 mm female | .59 | .53 | .48 | .43 |
| 151562CX | DPJ-026A | 15.1 x 8.0 Dia. | 6/E | 1/A | 2.5 mm female | 1.49 | 1.24 | 1.13 | .99 |
| 159505CX | PJ1015A | 35.8 x 12.6 Dia. | 10/F | 3/A | 2.5 mm female | 1.39 | 1.25 | 1.13 | 1.01 |
| 202358CX | HD2388 | 17.0 x 12.0 Dia. | 7/C | 3/A | 2.5 mm female | 1.09 | .98 | .88 | .79 |
| 3.5 mm Female Jacks | | | | | | | | | |
| 101143CX | PJ0352 | 10.0 x 10.0 x 18.5 | 2/E | 2/A | 3.5 mm male | \$.35 | \$.25 | \$.22 | \$.19 |
| 109495CX | PJ035PM | 10.5 x 9.0 x 8.8 | 3/C | 2/A | 3.5 mm male | .45 | .40 | .36 | .32 |
| 165729CX | PJ0354 | 8.9 x 5.7 Dia. | 9/C | 3/A | 3.5 mm male | .69 | .59 | .49 | .39 |

Male & Female Power Plugs

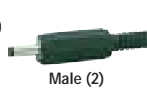
- Use with mating power jacks found in table, above
- Solder eyelets 1mm diameter
- Threaded screw-on housing (strain relief)
- Use with AC/DC wall adapters, pgs 149-152
- Shield crimp tabs
- Use 24 AWG 2 conductor wire, P/N 100280CX, to make custom length power cables, pg 59

SALE

New Lower Prices



Female (1)



Male (2)



Strain Relief (A)



Female Right Angle (B)



Hard Plastic Strain Relief (C)

| Part Number | Mfr. Cross Ref. No. | Description Plug ID x OD (mm) | Dimensions (mm) S (shaft) x L x ID (strain relief) | Type | Pricing | | | |
|-------------|---------------------|----------------------------------|---|------|---------|--------|--------|--------|
| | | | | | 1 | 10 | 100 | 1000 |
| Female Plug | | | | | | | | |
| 71191CX | PP137 | 1.3 x 3.5 | 9.6 x 43.9 x 4.8 (black) | 1/A | \$.79 | \$.71 | \$.65 | \$.59 |
| 191484CX | PP049W | 2.1 x 5.5 | 9.6 x 43.9 x 4.5 (white) | 1/A | .69 | .62 | .56 | .50 |
| 28759CX | PP049 | 2.1 x 5.5 (P205) | 8.5 x 41.4 x 4.6 (black) | 1/A | .59 | .49 | .39 | .29 |
| 147328CX | PP049L | 2.1 x 5.5 (P205L) | 14.0 x 46.4 x 4.6 (black) | 1/A | .69 | .62 | .56 | .50 |
| 138587CX | PJ021R | 2.1 x 5.5 rt. angle | 12.0 x 22.5 x 3.9 (black) | 1/B | .79 | .63 | .55 | .49 |
| 190537CX | PP109S | 2.5 x 5.5 (P206S) | 9.0 x 43.5 x 4.8 (black) | 1/A | .39 | .32 | .29 | .19 |
| 28767CX | PP109 | 2.5 x 5.5 (P206) | 10.1 x 45.4 x 4.3 (black) | 1/A | .59 | .49 | .39 | .33 |
| 191492CX | PP109W | 2.5 x 5.5 | 10.1 x 45.4 x 4.5 (white) | 1/A | .39 | .35 | .28 | .21 |
| 147336CX | PP109L | 2.5 x 5.5 (P206L) | 13.6 x 47.5 x 4.8 (black) | 1/A | .75 | .68 | .61 | .55 |
| 168241CX | PP109N | 2.5 x 5.5 | 13.7 x 36.5 x 3.9 (black) | 1/C | .59 | .49 | .43 | .35 |
| Male Plug | | | | | | | | |
| 101135CX | PJ1025 | 2.5 (P201) | 11.1 x 49.0 x 4.3 (black) | 2/A | \$.59 | \$.53 | \$.39 | \$.29 |
| 147459CX | PJ1025L | 2.5 (P201L) | 10.5 x 48.0 x 5.0 (black) | 2/A | .35 | .32 | .25 | .19 |
| 101151CX | PJ1035 | 3.5 (P202) | 13.8 x 51.8 x 4.2 (black) | 2/A | .55 | .43 | .36 | .32 |
| 147344CX | PJ1035L | 3.5 (P202L) | 14.1 x 51.0 x 5.2 (black) | 2/A | \$.64 | .55 | .43 | .32 |

Automobile Power Plug & Cord Assembly

- Screw assembly with strain relief
- Accepts .25" x 1.25" fuse
- Plugs directly into cigarette lighter
- 124759CX: 3' cord pigtail end

| Part No. | Description | 1 | 10 | 100 |
|----------|-----------------------------|--------|--------|--------|
| 115001CX | W/ 5A/250VAC fuse | \$1.95 | \$1.65 | \$1.19 |
| 124759CX | W/ 3A/250VAC fuse & 3' cord | 1.89 | 1.72 | 1.69 |



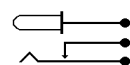
115001CX



124759CX

Switchcraft® Power Plugs & Jacks

New



Circuit



281851CX



281842CX



281877CX

- 281851CX: 2.1mm power jack; panel mount; 15.1mm Length x 7.5mm Diameter
- 281842CX: 2.5mm power jack; panel mount; 15.8mm Length x 7.5mm Diameter
- 281877CX: 2.5mm x 5.5mm power plug; panel mount; 9.6mm shaft L x 36.5mm Length x 5.7mm Diameter

| Part No. | Product No. | 1 | 10 | 25 | 100 |
|----------|-------------|--------|--------|--------|--------|
| 281851CX | 722A* | \$2.09 | \$1.94 | \$1.75 | \$1.65 |
| 281842CX | 712A* | 2.05 | 1.88 | 1.76 | 1.65 |
| 281877CX | 760 | 2.15 | 1.94 | 1.76 | 1.59 |

* These products ship from a separate warehouse. Each warehouse will accrue separate shipping charges.
* Refer to circuit diagram

Table Top Power Supplies and Wall Adaptors, see pages 144-152.



Why Are You Buying This?

Engineers are said to be linear thinkers, not good with interrupts. So they say ...



So if you're on this page, you may be thinking about buying power plugs. A lot of our customers have bought them for use in wall adaptors and table-top power supplies.

NMI: Why would you consider buying wall adaptors in volume, then buying power plugs in volume, then spending the time and money having them assembled together (in volume)?

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Now you can RTI.

Practical Practices
Money Saving Tips for the Engineer

BNC Connectors and Adapters

- Frequency range: 0-4GHz
- Contact plating: silver/gold
- Cable type:
 - 223351CX: RG58/58A/58C/141/303/LMR, Belden 7806A
 - 223360CX: RG55/141/142/223/400
 - 223394CX: RG59/62/71/140/210/302
 - 223474CX: RG59/62/140/210, Belden 8241/8263/8279/9209
 - 223693CX: RG5/9/87A/214/313/325
- Working voltage: 500V
- Body plating: nickel/tin-lead



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15

| Part No. | Product No. | Fig. | Industry No. | Description | 1 | 10 | 100 |
|----------|-------------|------|--------------|---|--------|--------|--------|
| 223351CX | 31-2 | 1 | UG-88/U | 50Ω plug, straight, clamp/solder | \$3.99 | \$3.39 | \$2.55 |
| 223431CX | 31-202 | 1 | UG-88C/U | 50Ω plug, straight, solder cup | 3.99 | 3.30 | 2.79 |
| 223360CX | 31-5 | 2 | UG-89/U | 50Ω jack, straight, clamp/solder | 4.89 | 4.49 | 3.49 |
| 223378CX | 31-8 | 3 | UG-274/U | 50Ω/75Ω T-adapter, jack-plug-jack | 10.39 | 9.59 | 8.15 |
| 223458CX | 31-208 | 3 | UG-274A/U | 50Ω T-adapter, jack-plug-jack | 8.59 | 6.59 | 6.49 |
| 223386CX | 31-9 | 4 | UG-306/U | 50Ω right angle adapter, jack-plug | 13.55 | 10.25 | 8.59 |
| 223466CX | 31-209 | 4 | UG-306A/U | 50Ω right angle adapter, jack-plug | 12.19 | 10.99 | 9.39 |
| 223394CX | 31-12 | 5 | UG-260/U | 50Ω plug, straight, clamp | 7.49 | 5.79 | 5.65 |
| 223474CX | 31-212 | 5 | UG-260B/U | 50Ω plug, straight, clamp/solder | 3.75 | 3.29 | 2.65 |
| 223415CX | 31-17 | 6 | CW-159/U | 50Ω male shorting cap | 5.39 | 4.99 | 4.49 |
| 223423CX | 31-102 | 7 | UG-657/U | 50Ω bulkhead receptacle, straight, solder cup | 5.19 | 4.75 | 4.69 |
| 223440CX | 31-203 | 8 | UG-290A/U | 50Ω receptacle, straight/flange, solder cup | 5.95 | 5.42 | 4.65 |
| 223482CX | 31-218 | 9 | UG-491A/U | 50Ω in-series adapter, plug-plug | 8.15 | 7.15 | 5.99 |
| 223491CX | 31-219 | 10 | UG-914/U | 50Ω in-series adapter, jack-jack | 4.39 | 3.59 | 2.49 |
| 223503CX | 31-220H | 11 | UG-492A/U | 50Ω in-series adapter, jack-jack | 7.59 | 6.99 | 6.25 |
| 223554CX | 31-3220 | 12 | UG-492D/U | 50Ω bulkhead adapter, straight, jack-jack | 11.65 | 8.85 | 7.99 |
| 223511CX | 31-221 | 13 | UG-1094/U | 50Ω bulkhead receptacle, straight, solder cup | 2.19 | 1.99 | 1.25 |
| 223538CX | 31-2221 | 14 | UG-1094A/U | 50Ω bulkhead receptacle, straight, solder cup | 2.69 | 2.25 | 1.59 |
| 223520CX | 31-236 | 13 | UG-625B/U | 50Ω bulkhead receptacle, straight, pin/pin | 2.49 | 2.19 | 1.29 |
| 223685CX | 5575 | 13 | UG-625/U | 50Ω bulkhead receptacle, solder | 4.45 | 3.39 | 3.15 |
| 223693CX | 6775 | 15 | UG-959/U | 50Ω right angle plug, clamp/solder | 12.59 | 9.99 | 9.75 |

UHF Connectors and Adapters

- Frequency range: 0-300MHz
- Working voltage: 500V
- Contact plating: nickel & silver
- Cable type:
 - 223600CX/223618CX/223677CX: RG8/9/87A/214/313/225
 - 223651CX: RG58/141



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8

| Part No. | Product No. | Fig. | Industry No. | Description | 1 | 10 | 100 |
|----------|-------------|------|--------------|--|--------|--------|--------|
| 223562CX | 83-1AP | 1 | UG-646/U | In-series right angle adapter, jack-plug | \$7.19 | \$5.79 | \$5.75 |
| 223571CX | 83-1F | 2 | UG-363/U | In-series bulkhead adapter, socket-socket | 13.79 | 10.25 | 9.99 |
| 223589CX | 83-1J | 3 | PL-258 | In-series straight adapter, jack-jack | 6.99 | 5.99 | 5.29 |
| 223837CX | 83-1T | 4 | M-358 | In-series T-adapter, jack-plug-jack | 11.19 | 8.99 | 8.75 |
| 223597CX | 83-1R | 5 | SO-239 | Non-constant impedance panel receptacle, solder cup | 2.99 | 2.55 | 1.65 |
| 223699CX | 83-798 | 5 | SO-239A | Non-constant impedance panel receptacle, solder cup | 5.25 | 3.99 | 3.59 |
| 223600CX | 83-1SP | 6 | PL-259 | Non-constant impedance plug, straight, solder-solder | 3.09 | 2.87 | 1.69 |
| 223618CX | 83-1SP-1050 | 7 | PL-259 | Non-constant impedance plug, straight, solder-solder | 1.69 | 1.52 | 1.15 |
| 223677CX | 83-822 | 7 | PL-259 | Non-constant impedance plug, straight, solder-solder | 3.89 | 2.99 | 2.59 |
| 223651CX | 83-765 | 8 | UG-177/U | Hood for 83-1R, above | 2.55 | 1.99 | 1.69 |

BNC Adapters



188411CX



188429CX



188402CX

- Frequency range: 0-4GHz with low reflection

188411CX: Straight jack-to-jack

188429CX: Jack-plug-jack

188402CX: Gasketed jack-to-jack

New Lower Prices

| Part No. | Product No. | 1 | 10 | 25 | 100 |
|----------|-------------|------------------------|--------|--------|--------|
| 188411CX | 31-219-RFX | \$2.99 | \$2.66 | \$2.35 | \$1.95 |
| 188429CX | 31-208-RFX | 4.45 | 3.37 | 2.28 | 1.99 |
| 188402CX | 31-220G-RFX | \$2.45 3.29 | 2.94 | 1.99 | 1.83 |

BNC 50Ω Cable Plugs

BNC 3-Piece

- Silver-plated
- Frequency range: 0-4GHz with low reflection
- Attachment (outer/inner): crimp/crimp

188306CX: RG58/184

188349CX: RG174/188/316



188306CX



188349CX

| Part No. | Product No. | 1 | 10 | 25 | 100 |
|----------|-------------|--------|--------|--------|--------|
| 188306CX | 31-320-RFX | \$1.49 | \$1.26 | \$1.03 | \$0.90 |
| 188349CX | 31-315-RFX | 1.89 | 1.63 | 1.22 | .96 |

Type N Crimp Connector

- Silver-plated
- RG58/141
- Attachment (outer/inner): crimp/crimp



| Part No. | Product No. | 1 | 10 | 50 | 100 |
|----------|-------------|--------|--------|--------|--------|
| 188445CX | 82-5375-RFX | \$4.35 | \$3.29 | \$2.50 | \$2.25 |

SMA Brass Plug

- Frequency range: 0-18GHz
- Outer cable attachment: crimp
- Inner cable attachment: solder
- Construction: captive contact
- Type: crimp plug
- For RG174/U, RG188/U, and RG316/U cables



| Part No. | Product No. | 1 | 10 | 50 |
|----------|--------------|--------|--------|--------|
| 188488CX | 901-9877-RFX | \$2.49 | \$2.25 | \$1.99 |

For BNC/F-Type
Keystone Style Jacks,
see page 67.



Corporate Customers

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We carry major manufacturers – call for OEM PRICING.

SALE

BNC Coax Connectors

Quantity
SAVE

- Miniature, lightweight units designed to operate up to 11GHz and typically yield low reflection up to 4GHz



Figure 1



Figure 2

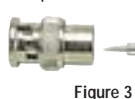


Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10

| Part No. | Fig. | Description | 1 | 10 | 100 | 500 |
|----------|------|---|--------|--------|--------|--------|
| 71458CX | 1 | BNC male terminator (50Ω) | \$1.55 | \$1.15 | \$.99 | \$.89 |
| 71790CX | 1 | BNC male terminator (75Ω) | 1.35 | 1.09 | .89 | .73 |
| 135618CX | 2 | BNC male with pin and ferrule (RG6) | .89 | .69 | .45 | .39 |
| 71482CX | 2 | BNC male with pin and ferrule (RG58) | 1.65 | 1.49 | 1.35 | 1.25 |
| 71271CX | 2 | BNC male with pin and ferrule (RG59/62) | .81 | .66 | .59 | .54 |
| 112109CX | 2 | BNC male with pin and ferrule (RG174) | 1.59 | 1.45 | 1.29 | 1.15 |
| 119394CX | 3 | BNC male clamp-on (RG59/62) | 1.39 | 1.25 | 1.15 | .89 |
| 108994CX | 4 | BNC male twist-on (RG58) | 1.49 | 1.35 | 1.19 | .95 |
| 71781CX | 4 | BNC male twist-on (RG59/62) | 1.09 | .99 | .89 | .79 |
| 71589CX | 5 | BNC female panel mount (UG-1094A) | 1.49 | 1.35 | 1.25 | 1.09 |
| 71909CX | 6 | BNC female/female coupler (UG-914) | 1.29 | .99 | .85 | .74 |
| 127343CX | 7 | BNC male/male coupler (UG-491B/U) | 1.99 | 1.79 | 1.39 | 1.29 |
| 111561CX | 8 | BNC female isolated bulkhead | 2.29 | 1.99 | 1.79 | 1.59 |
| 148224CX | 9 | BNC female bulkhead feed-thru | 1.99 | 1.79 | 1.59 | 1.39 |
| 148232CX | 9 | BNC female isolated bulkhead feed-thru | 2.49 | 2.25 | 1.79 | 1.35 |
| 127351CX | 10 | BNC M-F right angle (DG-306B/O) | 2.49 | 2.19 | 1.85 | 1.59 |
| 160928CX | 11 | BNC female, crimp type (RG58) | 1.25 | 1.09 | .99 | .89 |
| 161921CX | 11 | BNC female, crimp type (RG174) | 1.49 | 1.35 | 1.19 | 1.05 |
| 174289CX | 12 | BNC female chassis mount | 1.19 | .98 | .88 | .79 |
| 174297CX | 13 | BNC female twist-on bulkhead | 2.25 | 2.02 | 1.62 | 1.22 |
| 174254CX | 14 | BNC male to F connector female | 1.99 | 1.59 | 1.45 | 1.19 |
| 207183CX | 15 | BNC male to RG58/59 crimp on | 3.99 | 3.59 | 2.89 | 2.15 |



Figure 11



Figure 12



Figure 13



Figure 14



Figure 15

BNC PCB Connectors

- 146528CX: Ideal for applications where multiple insertions require a connector which can endure the stress of high torque
- 146510CX/161656CX: Maintains matching impedance at 50Ω & 75Ω. Ideal for LAN cards & precision video

| Part No. | Description | Length (L) | 1 | 10 | 100 | 500 |
|----------|------------------------------------|------------|--------|--------|--------|--------|
| 146528CX | BNC straight metal | .719" | \$2.79 | \$2.49 | \$2.25 | \$1.95 |
| 210884CX | BNC straight/panel mount metal | .830" | 2.29 | 1.99 | 1.65 | 1.25 |
| 146510CX | BNC right-angle plastic insulation | 1.37" | 1.95 | 1.75 | 1.49 | 1.25 |
| 161656CX | BNC right-angle metal | .861" | 2.29 | 1.99 | 1.79 | 1.59 |



146528CX

146510CX

210884CX

161656CX

BNC Adapters

Quantity
SAVE

- Silver-plated
- General purpose coax T-adapter

- ThinNet/Ethernet LAN adapter

| Part No. | Description | 1 | 10 | 100 | 500 |
|----------|--|--------|--------|--------|--------|
| 118594CX | Male to female/female T-adapter | \$2.39 | \$2.15 | \$1.75 | \$1.25 |
| 207108CX | Quad female adapter | 3.99 | 3.49 | 2.99 | 2.49 |
| 207095CX | Female to male/male T-adapter | 6.99 | 6.25 | 5.59 | 4.99 |
| 72629CX | Female to female/female T-adapter | 2.49 | 2.25 | 1.99 | 1.69 |
| 207087CX | Female to male/female T-adapter | 9.95 | 8.95 | 6.45 | 5.39 |
| 100589CX | Male to female/female T-adapter (90°) | 4.95 | 4.45 | 3.99 | 3.65 |
| 100597CX | Male to female/female T-adapter (180°) | 5.99 | 5.39 | 4.85 | 3.99 |
| 207116CX | Male to female/female/female T-adapter | 7.19 | 6.45 | 5.79 | 4.95 |
| 117461CX | Male to female/female F-adapter (90°) | 4.29 | 3.89 | 3.49 | 2.99 |
| 207124CX | Male/male to female/female T-adapter | 4.49 | 4.05 | 3.25 | 2.45 |
| 207167CX | RCA female to BNC female | 1.99 | 1.79 | 1.59 | 1.39 |
| 114788CX | RCA female to BNC male adapter | 1.35 | 1.05 | .99 | .98 |
| 207175CX | RCA male to BNC male | 1.99 | 1.79 | 1.59 | 1.39 |
| 114753CX | RCA male to BNC female adapter | 1.59 | 1.45 | 1.29 | 1.09 |
| 114770CX | BNC female to "F" connector male adapter | 1.79 | 1.59 | 1.39 | 1.19 |
| 207141CX | 3.5mm mono male to BNC female | 1.69 | 1.49 | 1.25 | .95 |



118594CX



207108CX



207095CX



72629CX



207087CX



100589CX



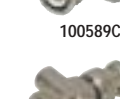
100597CX



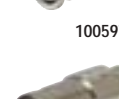
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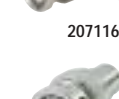
117461CX



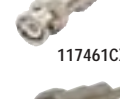
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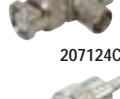
207167CX



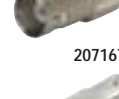
114788CX



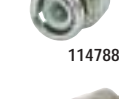
207175CX



114753CX



114770CX



207141CX

BNC Coax Cables



181307CX

152311CX

85542CX

- Male coax connectors

RG6 75Ω Cables

| Part No. | Description | 1 | 10 | 50 | 100 |
|----------|---------------|--------|--------|--------|--------|
| 176794CX | 3' BNC to BNC | \$3.95 | \$3.55 | \$3.19 | \$2.89 |
| 176815CX | 6' BNC to BNC | 4.95 | 4.49 | 4.05 | 3.35 |

RG58/U 50Ω Cables

| Part No. | Mfr. Cross Ref. No. | Length (ft.) | 1 | 10 | 50 | 100 |
|----------|---------------------|--------------|--------|--------|--------|--------|
| 181307CX | CRG58-1RR | 1 | \$3.65 | \$3.29 | \$2.95 | \$2.75 |
| 102314CX | CRG58-1 | 1.5 | 3.99 | 3.49 | 2.99 | 2.49 |
| 256743CX | CBB-224-24 | 2 | 9.75 | 9.39 | 8.89 | 7.99 |
| 11404CX | CRG58-3 | 3 | 4.29 | 3.89 | 3.49 | 3.15 |
| 256760CX | CBB-224-72 | 6 | 12.19 | 11.75 | 11.12 | 9.99 |
| 102331CX | CRG58-6 | 6 | 4.39 | 3.99 | 3.59 | 3.19 |
| 152311CX | RG58MF-6* | 6 | 2.95 | 2.66 | 2.12 | 1.59 |
| 180822CX | CRG58-10 | 10 | 4.49 | 4.59 | 2.69 | 1.89 |
| 102349CX | CRG58-12 | 12 | 4.95 | 4.49 | 3.99 | 3.39 |
| 169818CX | CRG58-15 | 15 | 4.95 | 4.46 | 3.56 | 2.67 |
| 102357CX | CRG58-25 | 25 | 6.49 | 5.19 | 3.89 | 2.75 |
| 102365CX | CRG58-50 | 50 | 9.49 | 8.54 | 6.83 | 5.12 |
| 102381CX | CRG58-100 | 100 | 13.49 | 12.14 | 9.71 | 7.28 |

*152311CX has male and female coax connectors

RG59/U 75Ω Cables

- For CATV and video patch cords

| Part No. | Mfr. Cross Ref. No. | Length (ft.) | 1 | 10 | 50 | 100 |
|----------|---------------------|--------------|--------|--------|--------|--------|
| 86471CX | CRG59-1 | 1.5 | \$2.99 | \$2.69 | \$2.45 | \$2.19 |
| 85542CX | CRG59-6 | 6 | 3.75 | 3.39 | 2.69 | 2.05 |
| 226253CX | BZA3636 | 8 | 4.49 | 3.95 | 3.65 | 3.29 |
| 102373CX | CRG59-12 | 12 | 5.49 | 4.95 | 4.45 | 3.99 |
| 262730CX | EBC-525 | 25 | 10.45 | 10.25 | 9.95 | 9.50 |
| 262748CX | EBC-550 | 50 | 17.05 | 16.25 | 15.45 | 14.69 |
| 262764CX | EBC-510 | 100 | 30.39 | 28.89 | 27.45 | 25.99 |

RG174/U 50Ω Cables

- For Ethernet networks, oscilloscopes

| Part No. | Mfr. Cross Ref. No. | Length (ft.) | 1 | 10 | 50 | 100 |
|----------|---------------------|--------------|--------|--------|--------|--------|
| 111472CX | RG174U3 | 3 | \$3.85 | \$3.49 | \$3.15 | \$2.85 |
| 111481CX | RG174U6 | 6 | 4.59 | 4.15 | 3.75 | 3.35 |

SMB PCB Connector

- 0-4GHz electrical performance
- Gold plated brass
- Insulation: teflon
- Contact: beryllium copper



| Part No. | Description | 1 | 10 | 50 |
|----------|-------------------------|--------|--------|--------|
| 167311CX | Fem. right angle PCB .. | \$4.45 | \$3.89 | \$3.25 |

SMB PCB Jack Connectors



172363CX

172371CX

- For use with RG-174 cable
- 50Ω crimp type
- Gold plated
- Use with crimping tool P/N 114534CX, pg 186

| Part No. | Description | 1 | 10 | 50 |
|----------|---------------------------|--------|--------|--------|
| 172363CX | Bulkhead crimp jack | \$3.49 | \$2.95 | \$2.49 |
| 172371CX | Cable crimp plug | 4.29 | 3.89 | 3.49 |

SMA/SMB 50Ω Coax Cables

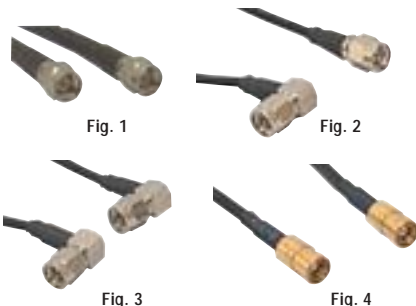


Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 1: SMA male to SMA male

Fig. 2: SMA male to SMA right angle male

Fig. 3: SMA right angle male to SMA right angle male

Fig. 4: SMB male to SMB male

| Part No. | Cable | Fig. | Lgth (ft.) | 1 | 10 | 50 |
|----------|-------|------|------------|--------|--------|--------|
| 159370CX | RG58 | 1 | 2 | \$4.49 | \$3.99 | \$3.49 |
| 159396CX | RG58 | 1 | 6 | 5.49 | 4.89 | 4.19 |
| 169800CX | RG174 | 1 | 0.5 | 5.59 | 4.99 | 4.55 |
| 163854CX | RG174 | 1 | 1 | 4.49 | 3.95 | 3.39 |
| 153381CX | RG174 | 1 | 2 | 4.95 | 4.29 | 3.39 |
| 153390CX | RG174 | 1 | 4 | 5.49 | 4.75 | 4.29 |
| 159450CX | RG174 | 1 | 4 | 6.79 | 6.15 | 5.55 |
| 175126CX | RG174 | 2 | 0.5 | 4.49 | 3.95 | 3.49 |
| 175134CX | RG174 | 2 | 1 | 4.95 | 4.25 | 3.75 |
| 175142CX | RG174 | 3 | 0.5 | 5.75 | 5.25 | 4.49 |
| 175151CX | RG174 | 3 | 1 | 6.25 | 5.75 | 4.75 |
| 175169CX | RG174 | 4 | 0.5 | 4.25 | 3.19 | 2.25 |
| 175177CX | RG174 | 4 | 1 | 5.29 | 4.79 | 3.95 |

F-Type 75Ω Coax Cable

- Low signal loss
- Strain relief
- Male to male F-type



| Part No. | Cable | Lgth (ft.) | 1 | 10 | 50 | 100 |
|----------|-------|------------|--------|--------|--------|--------|
| 85585CX | RG59 | 3 | \$1.05 | \$.95 | \$.85 | \$.79 |

SMA Connectors, Adapters and Couplers



157972CX

153365CX

145381CX

145373CX

153285CX

159530CX

160021CX

160012CX

188509CX

188525CX

- Application: cellular phone, data communication, instrumentation, and video
- Frequency range: 0-18GHz
- Temperature range: -65°C to 165°C
- 50Ω impedance
- Plating: gold and nickel

Connectors

| Part No. | Description | Cable Type | Plated | 1 | 10 | 50 | 100 |
|----------|--|------------|--------------|--------|--------|--------|--------|
| 157972CX | SMA 50Ω crimp type male plug connector | RG58 | Gold | \$3.99 | \$3.59 | \$3.29 | \$2.99 |
| 153365CX | SMA 50Ω crimp type male plug connector | RG174 | Gold | 4.39 | 3.95 | 3.55 | 3.19 |
| 145381CX | SMA straight female PCB mount connector, 4 legs | — | Gold | 5.25 | 4.75 | 4.25 | 3.49 |
| 145373CX | SMA 90° female PCB mount connector, 4 legs | — | Gold | 7.39 | 6.65 | 5.95 | 5.39 |
| 153285CX | SMA bulkhead solder female w/ washer, rear mount | RG58/174 | Gold | 3.49 | 3.15 | 2.85 | 2.59 |
| 159530CX | SMA female panel mount conn., 4 mounting holes* | RG58/174 | Gold | 2.95 | 2.65 | 2.35 | 2.10 |
| 160021CX | SMA female panel mount conn., 2 mounting holes* | RG58/174 | Gold | 3.99 | 3.59 | 3.25 | 2.95 |
| 160012CX | Panel mount feed thru connector female – female | — | Nickel | 4.99 | 4.49 | 3.99 | 3.49 |
| 188509CX | SMA PCB straight jack | — | Gold | 3.69 | 3.35 | 2.99 | 2.69 |
| 188525CX | SMA PCB right angle jack | — | Gold | 5.95 | 4.95 | 3.79 | 3.35 |

*159530CX/160021CX: Solder cup

SMA to BNC Adapters



153453CX

159468CX

153592CX

159476CX

| Part No. | Description | Plated | 1 | 10 | 50 | 100 |
|----------|----------------------------------|--------------|--------|--------|--------|--------|
| 153453CX | SMA female to BNC male adapter | Nickel | \$2.49 | \$2.25 | \$1.99 | \$1.79 |
| 159468CX | SMA female to BNC female adapter | Nickel | 2.69 | 2.45 | 2.19 | 1.99 |
| 153592CX | SMA male to BNC male adapter | Nickel | 3.99 | 3.59 | 3.19 | 2.89 |
| 159476CX | SMA male to BNC female adapter | Nickel | 2.99 | 2.69 | 2.45 | 2.19 |

Couplers



153293CX

161277CX

161293CX

161306CX

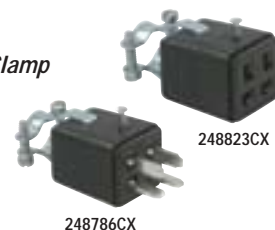
| Part No. | Description | Plated | 1 | 10 | 50 | 100 |
|----------|--|------------|--------|--------|--------|--------|
| 153293CX | SMA straight coupler female – jack-to-jack | Gold | \$3.85 | \$3.39 | \$2.19 | \$1.79 |
| 161277CX | 3-way coupler, 1 male – 2 female | Gold | 3.49 | 3.15 | 2.85 | 2.45 |
| 161293CX | Straight coupler male – male | Gold | 3.65 | 3.29 | 2.95 | 2.75 |
| 161306CX | Right angle coupler male – female | Gold | 4.99 | 4.49 | 3.99 | 3.65 |

Cinch

Jones Plugs and Sockets

Multiple-Density Solder-Eyelet Connectors with Hood and 180° Clamp

- Insulation material: molded mono-block, black phenolic
- Contact material: plug–brass; socket–phosphor bronze
- Contact plating: cadmium
- Hood material: UL 94V-0 rated thermoplastic
- Operating voltage: 250 VAC RMS maximum
- Current rating: 10 amps
- Contact resistance: 16mΩ maximum



248823CX

248786CX

Plugs

| Part No. | Product No. | Contacts | 1 | 25 |
|----------|-------------|----------|--------|--------|
| 248760CX | P-302-CCT | 2 | \$2.15 | \$1.96 |
| 248778CX | P-303-CCT | 3 | 2.37 | 2.15 |
| 248786CX | P-304-CCT | 4 | 2.73 | 2.47 |
| 248794CX | P-306-CCT | 6 | 2.89 | 2.62 |

Sockets

| Part No. | Product No. | Contacts | 1 | 25 |
|----------|-------------|----------|--------|--------|
| 248807CX | S-302-CCT | 2 | \$2.29 | \$2.11 |
| 248815CX | S-303-CCT | 3 | 2.67 | 2.43 |
| 248823CX | S-304-CCT | 4 | 2.70 | 2.46 |
| 248831CX | S-306-CCT | 6 | 3.08 | 2.80 |

Jameco's Low-Price Guarantee

We'll match the print advertised price of any like product. It's that simple!



Terminal Blocks and Header

- For detailed specifications, please see our website at www.Jameco.com
- 164814CX**: Male header (.197") for use with 164793CX and 164806CX

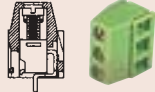


Fig. 1 (99397CX)

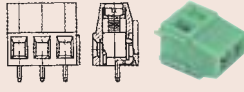


Fig. 2 (160784CX)



Fig. 3 (161066CX)



Fig. 4 (189675CX)



Fig. 5 (164793CX)



Fig. 6 (164806CX)



Fig. 7 (249084CX)

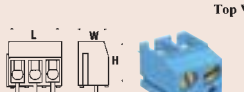


Fig. 8 (152346CX)



Fig. 9 (164814CX) (use with Fig. 5 & 6)

| Part No. | Mfg. | Product No. | Fig. | Term. | Terminal Spacing | 1 | 10 | 100 | 1000 |
|----------|--------|-------------|------|-------|------------------|------|------|------|------|
| 99426CX | Dinkle | DT128/2 | 1 | 2 | .197"/5mm | .72 | .55 | .44 | .40 |
| 99397CX | Dinkle | DT128V3P | 1 | 3 | .197"/5mm | .99 | .89 | .79 | .59 |
| 160784CX | Dinkle | EK500V-02P | 2 | 2 | .197"/5mm | .65 | .55 | .45 | .39 |
| 160792CX | Dinkle | EK500V-03P | 2 | 3 | .197"/5mm | .95 | .85 | .75 | .69 |
| 161066CX | Dinkle | EK500A-02P | 3 | 2 | .197"/5mm | .75 | .65 | .49 | .39 |
| 161058CX | Dinkle | EK500A-03P | 3 | 3 | .197"/5mm | .95 | .85 | .75 | .69 |
| 189675CX | OST | EDC500/2DS | 4 | 2 | .197"/5mm | .79 | .71 | .64 | .58 |
| 189667CX | OST | EDC500/3DS | 4 | 3 | .197"/5mm | .89 | .80 | .72 | .61 |
| 164793CX | OST | EDC130/2DS | 5 | 2 | .197"/5mm | .59 | .53 | .47 | .42 |
| 164806CX | OST | EDC130/3DS | 6 | 3 | .197"/5mm | .84 | .76 | .62 | .54 |
| 249084CX | OST | EDZ750/3 | 7 | 3 | .200"/5.08mm | 1.49 | 1.39 | 1.19 | .89 |
| 152346CX | OST | EDC120/2DS | 8 | 2 | .200"/5.08mm | .65 | .55 | .45 | .39 |
| 152354CX | OST | EDC120/3DS | 8 | 3 | .200"/5.08mm | .47 | .44 | .39 | .30 |
| 164814CX | OST | EDSTL130/24 | 9 | 24 | .197"/5mm | 2.25 | 1.95 | 1.75 | 1.49 |



Double Row Terminal Blocks

- Voltage rating: 250VAC RMS max.
- Insulation: molded mono block, general purpose phenolic, black, UL rated 94V-1
- Eyelet material: brass with nickel plating
- Screw material: steel with nickel over copper flash plating
- Solder terminal material: brass with electro-tin plating



140 Series 15A

- 3750-watts per terminal max.
- 16 AWG wire max. • Size: 0.88"W x 0.41"H
- Screw: 5-40 x 3/16" • Density: .375"

| Part No. | Prod. No. | Pos. | Length | 1 | 10 | 100 |
|----------|-----------|------|------------|--------|--------|--------|
| 230973CX | 2-140 | 2 | 1.41" | \$.99 | \$.89 | \$.74 |
| 230981CX | 3-140 | 3 | 1.78" | 1.29 | 1.15 | .95 |
| 230990CX | 4-140 | 4 | 2.16" | 1.45 | 1.29 | 1.05 |
| 231001CX | 5-140 | 5 | 2.53" | 1.59 | 1.44 | 1.18 |
| 231010CX | 6-140 | 6 | 2.91" | 1.99 | 1.79 | 1.48 |
| 231028CX | 7-140 | 7 | 3.28" | 2.19 | 1.95 | 1.59 |
| 231036CX | 8-140 | 8 | 3.66" | 2.49 | 2.24 | 1.83 |
| 231044CX | 9-140 | 9 | 4.03" | 2.79 | 2.49 | 2.03 |
| 231052CX | 10-140 | 10 | 4.41" | 3.25 | 2.89 | 2.35 |
| 231061CX | 12-140 | 12 | 5.16" | 3.55 | 3.15 | 2.59 |

141 Series 20A

- 5000-watts per terminal max.
- 14 AWG wire max. • Size: 1.13"W x 0.5"H
- Screw: 6-32 x 1/4" • Density: .438"

| Part No. | Prod. No. | Pos. | Length | 1 | 10 | 100 |
|----------|-----------|------|------------|--------|--------|--------|
| 231351CX | 2-141 | 2 | 1.63" | \$.99 | \$.85 | \$.72 |
| 231360CX | 3-141 | 3 | 2.10" | 1.69 | 1.45 | 1.09 |
| 231378CX | 4-141 | 4 | 2.50" | 1.79 | 1.59 | 1.25 |
| 231386CX | 5-141 | 5 | 2.94" | 1.85 | 1.64 | 1.33 |
| 231394CX | 6-141 | 6 | 3.38" | 1.99 | 1.75 | 1.45 |
| 231407CX | 7-141 | 7 | 3.81" | 2.49 | 2.25 | 1.85 |
| 231415CX | 8-141 | 8 | 4.25" | 2.79 | 2.35 | 1.94 |
| 231423CX | 9-141 | 9 | 4.69" | 2.99 | 2.59 | 2.19 |
| 231431CX | 10-141 | 10 | 5.13" | 3.19 | 2.79 | 2.29 |
| 231440CX | 12-141 | 12 | 6.00" | 3.59 | 3.29 | 2.69 |



DIN Rail-Mounted Terminal Block and DIN Rail

Foot snaps onto standard DIN and DIN 2 rails. Terminals are positively retained on rails, but can be removed without disturbing adjacent units.

- Molded thermoplastic • Spacing: 5.06mm (.199")
- UL rated voltage and current: 600V @ 20A • 14-22 AWG

| Part No. | Product No. | Type | 1 | 10 | 100 |
|----------|-------------|----------|-------|--------|--------|
| 237083CX | 41296.2 | SR2.5 | ..... | \$ .89 | \$.79 |
| 248735CX | 2094.0 | TS35x7.5 | ..... | 6.79 | 5.45 |



European Terminal Blocks

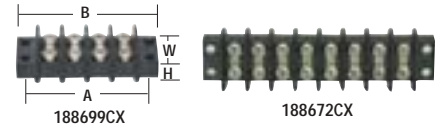
- Number of poles: 12
- 1.2mm raised base
- Working temperature: 230°F (110°C)
- Material: Polyamide 66 (nylon 66), UL94V2, natural
- Terminal insert: brass metal alloy, nickel plated
- Wire protector: stainless steel spring
- Screws: zinc plated, yellow chromed



215010CX

| Part No. | Prod. No. | Amps | AWG | 1 | 10 | 100 |
|----------|-----------|------|-------|--------|--------|--------|
| 215010CX | PA8H | 20A | 12-22 | \$1.79 | \$1.59 | \$1.29 |
| 215028CX | PA10H | 30A | 10-22 | 1.89 | 1.69 | 1.39 |
| 215036CX | PA12H | 35A | 10-22 | 2.59 | 2.29 | 1.99 |

KULKA® 601 GP Series Double Row Terminal Blocks



- Base: general purpose phenolic; 150°C
- Screws: #6-32, binder head, phillips-slot
- Terminals: brass plated • Width (W): 1.12"
- .437" (11 mm) centers • Height (H): .50"
- 1100Vrms; 20A ratings; for 14-16 AWG wires
- Open block design
- UL/CSA/CE approved



| Part Number | Product Number | Poles | Dimensions A" B" | 1 | 10 | 50 |
|-------------|----------------|-------|------------------|--------|--------|--------|
| 188699CX | 601GP4 | 4 | 2.19 2.50 | \$1.69 | \$1.49 | \$1.35 |
| 188681CX | 601GP6 | 6 | 3.06 3.38 | 2.39 | 2.19 | 1.89 |
| 188672CX | 601GP8 | 8 | 3.94 4.25 | 2.95 | 2.75 | 2.49 |
| 188664CX | 601GP10 | 10 | 4.81 5.13 | 3.49 | 3.25 | 2.95 |
| 188701CX | 601GP12 | 12 | 5.69 6.00 | 5.49 | 4.95 | 3.95 |

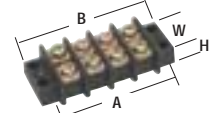
Metric Double Row Terminal Blocks

- Wire gauge range: 12-18 AWG
- Body Material: black thermoplastic (UL94V-0)
- Terminals: brass tin plated
- Screws: steel nickel plated
- Insulation withstanding voltage: 2000VAC min.
- Insulation resistance: 1000MΩ or more at 500VDC



10A @ 600V

- Screw size: M3.0
- Width (W): 19.5mm
- Height (H): 11.9mm



| Part Number | Product Number | Poles | Dimensions A B | 1 | 10 | 50 |
|-------------|----------------|-------|----------------|--------|--------|--------|
| 208856CX | GGE-10-4P | 4 | 47.5 55 | \$.99 | \$.89 | \$.79 |
| 208864CX | GGE-10-6P | 6 | 64.5 74 | 1.39 | 1.25 | 1.15 |
| 208872CX | GGE-10-8P | 8 | 95 102.5 | 1.69 | 1.59 | 1.49 |
| 208899CX | GGE-10-10P | 10 | 104.5 112 | 2.39 | 2.15 | 1.89 |
| 208881CX | GGE-10-12P | 12 | 123.5 131 | 2.79 | 2.49 | 2.25 |

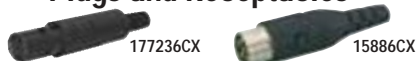
20A @ 600V

- Screw size: M3.5
- Width (W): 22.0mm
- Height (H): 13.2mm



| Part Number | Product Number | Poles | Dimensions A B | 1 | 10 | 50 |
|-------------|----------------|-------|----------------|--------|--------|--------|
| 207538CX | GGE-20-4P | 4 | 54.5 63.5 | \$1.39 | \$1.25 | \$1.10 |
| 207546CX | GGE-20-6P | 6 | 76.3 85.3 | 1.99 | 1.79 | 1.59 |
| 207554CX | GGE-20-8P | 8 | 98.1 107.1 | 2.59 | 2.35 | 2.15 |
| 207562CX | GGE-20-10P | 10 | 119.9 128.9 | 3.29 | 2.99 | 2.69 |
| 207571CX | GGE-20-12P | 12 | 141.7 150.7 | 3.59 | 3.19 | 2.79 |

DIN and Mini DIN Plugs and Receptacles



- Solder barrels including strain relief
- See page 59 for cable

Quantity
SAVE

| Part No. | Pins | Type | 1 | 10 | 100 |
|----------|------|-----------------|-------|-------|-------|
| 142279CX | 4 | Mini plug | \$.79 | \$.68 | \$.53 |
| 142261CX | 6 | Mini plug | .89 | .77 | .59 |
| 177244CX | 6 | Mini receptacle | .99 | .85 | .69 |
| 111878CX | 8 | Mini plug | .99 | .89 | .74 |
| 177236CX | 8 | Mini receptacle | 1.09 | .93 | .69 |
| 15878CX | 5 | DIN plug | .52 | .47 | .41 |
| 180873CX | 5 | DIN receptacle | .52 | .45 | .34 |
| 15886CX | 6 | DIN plug | .59 | .50 | .39 |
| 15894CX | 8 | DIN plug | .65 | .56 | .43 |

DIN Female Sockets

- Metal body
- Panel mount with solder lugs



| Part No. | Mfr. Cross Ref. No. | # of pins | 1 | 10 | 100 | 500 |
|----------|---------------------|-----------|--------|--------|--------|-------|
| 15843CX | DINJ5 | 5 | \$1.29 | \$1.15 | \$1.05 | \$.79 |
| 15851CX | DINJ6 | 6 | 1.39 | 1.25 | 1.15 | .99 |
| 15860CX | DINJ8 | 8 | 1.49 | 1.35 | 1.15 | 1.05 |

Right Angle DIN Female Sockets

- Set back: 0.5"
- PC mount contacts
- 140791CX/119474CX: Plastic/metal body
- 29399CX: Plastic body

Quantity
SAVE



| Part No. | Mfr. Cross Ref. No. | # of pins | 1 | 10 | 100 | 500 |
|----------|---------------------|-----------|-------|-------|-------|-------|
| 140791CX | MDR4S | 4 (mini) | \$.69 | \$.59 | \$.46 | \$.34 |
| 119474CX | MDR6S | 6 (mini) | .75 | .68 | .54 | .40 |
| 207722CX | MDS8100 | 8 (mini) | .99 | .89 | .69 | .55 |
| 29399CX | RD5 | 5 | .59 | .53 | .40 | .36 |

PCB Centronics Connectors

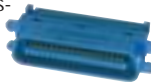


- Solder-type contacts
- Space between rows: .164"
- Space between pins: 0.1"
- Metal body
- PC mount

| Part No. | Description | 1 | 10 | 100 |
|----------|---------------------------|--------|--------|--------|
| 72151CX | 36-contact fem., rt angle | \$3.55 | \$3.19 | \$2.87 |
| 159708CX | 36-contact fem., straight | 1.37 | 1.11 | .95 |
| 72080CX | 50-contact fem., rt angle | 4.95 | 4.21 | 3.16 |

IDC Centronics Connector

- Contact material: gold plated phosphor bronze; plastic casing
- Current rating: 1 amp
- Temp. rating: -55°C to +105°C
- Use 73251CX IDC crimping tool, pg 187



| Part No. | Mfr. Cross Ref. No. | Description | 1 | 10 | 100 |
|----------|---------------------|-----------------|--------|--------|--------|
| 13848CX | CEN36M | 36-contact male | \$1.75 | \$1.55 | \$1.39 |

Jameco Special Values!

Sale items highlighted in yellow.
Great quantity discounts in green.

.100" IDC Plug Connectors

Double Row

- .100" x .100" grid
- Plastic
- Shrouded header w/o mounting ears
- Contact: gold-plated phosphor bronze
- Use with IDC socket for connectors, right



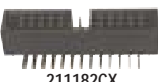
| Part No. | Cross Ref. No. | Contacts | 1 | 10 | 100 |
|----------|----------------|----------|--------|--------|--------|
| 29188CX | P40 | 40 | \$1.95 | \$1.75 | \$1.49 |
| 29217CX | P50 | 50 | 1.95 | 1.75 | 1.49 |

.100" Low-Profile Male Shrouded Headers

- Rating: 1A (max.) @ 250VDC
- Contact resistance: 15mΩ max.
- Features: UL recognized, CSA certified; .025" square post mates with sockets on .100" x .100" grid
- Contact: phosphor bronze, gold plated
- Use with IDC socket connectors, above



Quantity
SAVE



Straight Male Headers

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|-------------|-------|-------|-------|-------|
| 67811CX | 10-pin | \$.39 | \$.35 | \$.32 | \$.28 |
| 68179CX | 16-pin | .44 | .40 | .35 | .32 |
| 68291CX | 20-pin | .49 | .47 | .39 | .23 |
| 68371CX | 26-pin | .54 | .42 | .35 | .21 |
| 68582CX | 34-pin | .79 | .65 | .46 | .31 |
| 181104CX | 40-pin | .75 | .60 | .45 | .315 |

Right Angle Male Header

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|-------------|-------|-------|-------|-------|
| 211182CX | 26-pin | \$.45 | \$.39 | \$.29 | \$.19 |

.100" (2.5mm) Female Header Receptacles

- Gold plated contacts
- 0.1" contact center

Quantity
SAVE

Vertical Mount (Top Entry)

| Part No. | Contacts | Type | 1 | 10 | 100 | 500 |
|----------|----------|--------------|-------|-------|-------|-------|
| 70754CX | 8 | Single row | \$.59 | \$.53 | \$.43 | \$.35 |
| 200782CX | 12 | Single row | .79 | .59 | .45 | .42 |
| 70720CX | 16 | Double row | .89 | .79 | .72 | .65 |
| 70826CX | 20 | Double row | .99 | .89 | .71 | .53 |
| 105056CX | 30 | Double row | 1.09 | .98 | .88 | .74 |
| 163862CX | 34 | Double row | 1.19 | 1.05 | .92 | .79 |
| 111704CX | 40 | Double (Tin) | 1.29 | 1.15 | .99 | .89 |

Right Angle Mount (Side Entry)

| Part No. | Contacts | Type | 1 | 10 | 100 | 500 |
|----------|----------|------------|--------|--------|-------|-------|
| 71159CX | 20 | Double row | \$1.25 | \$1.10 | \$.99 | \$.85 |

Centronics Parallel Interface Connector

Metal Body and Shell Solder-Type Contacts

- Solder eyelets accept 24 AWG wire, pg 59
- Male cable plugs
- Complete with cable boot, shell and hardware

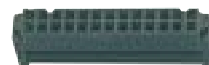


| Part No. | Cross Ref. No. | Contacts | 1 | 10 | 50 |
|----------|----------------|----------|--------|--------|--------|
| 42382CX | 57-30360 | 36 | \$1.79 | \$1.59 | \$1.49 |

.100" & 2mm IDC Socket Connectors

Double Row

- Mates with 2 rows of .025" Sq. or Dia. posts on patterns of .100" centers (male headers, see below)
- Industry standard IDC socket (plastic)
- Temperature rating: -55°C to +105°C
- Use crimp P/N 73251CX, pg 187



Polarized IDC Socket Connectors

| Part No. | Mfr. Cross Ref. No. | Contacts | 1 | 10 | 100 | 1000 |
|----------|---------------------|----------|-------|-------|-------|-------|
| 32491CX | S10 | 10 | \$.29 | \$.25 | \$.19 | \$.15 |
| 153947CX | S14 | 14 | .32 | .27 | .21 | .16 |
| 119466CX | S16 | 16 | .35 | .29 | .22 | .17 |
| 32521CX | S20 | 20 | .39 | .32 | .25 | .18 |
| 32563CX | S26 | 26 | .45 | .35 | .29 | .19 |
| 32643CX | S34 | 34 | .49 | .39 | .35 | .25 |
| 32678CX | S40 | 40 | .55 | .45 | .39 | .29 |
| 100386CX | IDC440* | 44 (2mm) | .99 | .89 | .75 | .59 |
| 32707CX | S50 | 50 | .65 | .55 | .45 | .35 |
| 32758CX | S60 | 60 | .75 | .68 | .54 | .40 |

*2mm pin spacing

Non-Polarized IDC Socket Connectors

| Part No. | Mfr. Cross Ref. No. | Contacts | 1 | 10 | 100 | 1000 |
|----------|---------------------|----------|-------|-------|-------|-------|
| 138376CX | SN10 | 10 | \$.35 | \$.32 | \$.28 | \$.24 |
| 138325CX | SN20 | 20 | .45 | .40 | .36 | .28 |
| 138333CX | SN26 | 26 | .39 | .35 | .32 | .24 |
| 138341CX | SN34 | 34 | .45 | .40 | .32 | .24 |
| 138350CX | SN40 | 40 | .49 | .45 | .39 | .29 |
| 138368CX | SN50 | 50 | .65 | .59 | .44 | .35 |

.100" (2.5mm) Straight Male Headers

With Standard Latch

Double Row

- 0.1" contact center
- Mount vertical
- Keying slot
- Use with IDC socket connectors, above



| Part No. | Description | 1 | 10 | 100 | 500 |
|----------|-------------|--------|--------|-------|-------|
| 117663CX | 10-pin | \$1.29 | \$1.16 | \$.99 | \$.61 |
| 71829CX | 20-pin | 1.39 | 1.25 | 1.13 | .95 |
| 71933CX | 26-pin | 1.49 | 1.25 | .99 | .89 |
| 72215CX | 50-pin | 1.85 | 1.65 | 1.49 | 1.35 |

PANAVISE IDC Bench Press and Cable Cutter

Designed for low to medium volume mass termination of various IDC connectors on flat ribbon cable.



| Part No. | Prod. No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-----------|-------------|------------|----------|----------|
| 27174CX | M505 | Bench press | 7.0 | \$179.95 | \$159.95 |

M505 Accessories

| | | | | | |
|---------|------|--------------|-----|----------|---------|
| 27182CX | M507 | Cable cutter | 0.9 | \$.66.95 | \$61.95 |
| 27203CX | M510 | Base plate | 0.5 | 26.49 | 23.49 |



See page 59 for
Gray and Multicolor
Ribbon Cables

Slim-Line D-Sub Gender Changers



For Confined Applications!

These revolutionary slim-line gender changers are only 0.69" wide, eliminating the space problems caused by standard gender changers. When plugged into your existing cable, they add only 0.44" to the cable. All-metal cases.

- Captive locking screw (male)
- Captive locking nut (female)
- Grounding tangs (male)

Quantity
SAVE

| Part No. | Description | 1 | 10 | 100 |
|----------|---------------------------|--------|--------|--------|
| 18497CX | 9-pin male | \$4.95 | \$4.49 | \$3.99 |
| 18489CX | 9-pin female | 4.95 | 4.49 | 3.99 |
| 56071CX | 15-pin male | 3.95 | 3.49 | 2.95 |
| 56063CX | 15-pin female | 3.95 | 3.39 | 2.55 |
| 119319CX | 15-pin female HD | 4.29 | 3.89 | 3.49 |
| 119301CX | 15-pin male HD | 4.95 | 4.49 | 3.95 |
| 18446CX | 25-pin female | 4.95 | 4.49 | 3.99 |
| 18420CX | 25-pin male | 4.95 | 4.49 | 3.99 |
| 170085CX | 25-pin M-F (pass through) | 2.95 | 2.65 | 2.35 |

D-Sub 9-Pin to 25-Pin Serial Adapters

10305CX: For use in AT or other computer systems that have 9-pin D-sub serial ports.

163740CX/153576CX/

10321CX: For PC/XT systems with DB25 serial ports.

139985CX: gold-plated contacts, extra long thumbscrews

Quantity
SAVE



| Part No. | Description | 1 | 10 | 100 |
|----------|--|--------|--------|--------|
| 10305CX | DB9 F to DB25 M | \$3.49 | \$2.99 | \$2.25 |
| 163740CX | DB9 M to DB25 F, thumbscrews on DB9 side only | 2.85 | 2.45 | 1.85 |
| 153576CX | DB9 M to DB25 F, thumbscrews on DB25 side only | 3.95 | 3.35 | 2.52 |
| 10321CX | DB9 M to DB25 F | 4.49 | 3.79 | 3.19 |
| 189632CX | DB9 M to DB25 M | 3.49 | 3.15 | 2.85 |
| 139985CX | DB9 F to DB25 F | 3.95 | 3.55 | 3.19 |

Full Handshaking Null Modem Adapters

Self-contained null-modem (cross-over) adapters. Change any standard straight cable into a null cable quickly and easily.

Internal pin configuration:

17224CX: 1-1, 2-3, 3-2, 4-5, 5-4, 6-20, 20-6, 7-7, 8-20

26243CX: 1-1, 2-3, 3-2, 4-8, 8-4, 5-8, 8-5, 6-20, 20-6, 7-7

Part No. Description 1 10 100

26243CX DB25 M to DB25 F \$3.95 \$3.65 \$3.49

17224CX DB25 F to DB25 F 3.49 2.95 2.49



30-Day Money-Back Guarantee

If you're not satisfied, we'll take it back!

Details on page 241.

Standard D-Sub Gender Changers



- Standard 9- and 25-pin D-sub male and female gender changers for interfacing two cables or connectors of the same gender

| Part No. | Description | 1 | 10 | 100 |
|----------|---------------------|--------|--------|--------|
| 16635CX | D-sub 9-pin male | \$1.95 | \$1.75 | \$1.49 |
| 16643CX | D-sub 9-pin female | 1.95 | 1.75 | 1.49 |
| 22058CX | D-sub 25-pin male | 1.95 | 1.49 | 1.05 |
| 22074CX | D-sub 25-pin female | 1.99 | 1.79 | 1.65 |

AT and PS/2 Keyboard Adapters



159089CX/189771CX: AT keyboard adapter

- Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN

Quantity
SAVE

159097CX/157930CX: PS/2 keyboard adapter

- Connects AT type keyboards to the PS/2
- 5-pin female DIN to 6-pin male mini DIN (PS/2)

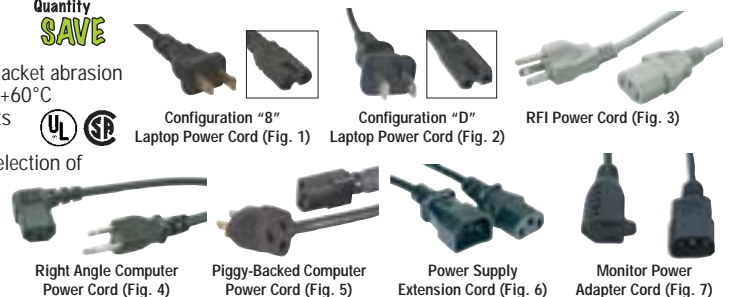
| Part No. | Length | Housing | 1 | 10 | 100 |
|----------|--------|---------------|--------|--------|--------|
| 159089CX | 1.6" | Metal | \$2.95 | \$2.65 | \$2.39 |
| 159097CX | 1.4" | Metal | 2.95 | 2.65 | 2.39 |
| 157930CX | 1.7" | Plastic/metal | 2.95 | 2.51 | 1.89 |
| 189771CX | 1.7" | Plastic | 2.95 | 2.65 | 2.39 |

Power Cords

Quantity
SAVE

- Molded connectors
- Excellent resistance to jacket abrasion
- Temperature: -20°C to +60°C
- Voltage rating: 300 volts
- UL/CSA approved
- See page 156 for full selection of power cords

| AWG | Volts | Amps | VA |
|-----|-------|------|------|
| 18 | 125 | 10 | 1250 |
| 16 | 125 | 12 | 1500 |
| 14 | 125 | 15 | 1875 |



| Part Number | Mfr. Cross Reference No. | Description | Plug Fig. | Length | Color | AWG | Cord Type* | Pricing | |
|-------------|--------------------------|--|-----------|--------|-------|------|------------|---------|--------|
| 189587CX | VW-1 | 2-conductor "8" style for laptops/power supplies | 1 | 6' | Black | 18/2 | SPT-2 | \$2.95 | \$2.21 |
| 200791CX | LL114039 | 2-conductor "D" style for laptops/power supplies | 2 | 6' | Black | 18/2 | SPT-2 | 2.95 | 2.69 |
| 103747CX | 17248 | 3-conductor | 3 | 6' | Gray | 18/3 | SVT | 3.59 | 3.05 |
| 38041CX | 17249 | 3-conductor | 3 | 6' | Beige | 18/3 | SVT | 3.49 | 3.15 |
| 38050CX | 17250 | 3-conductor | 3 | 6' | Black | 18/3 | SVT | 3.65 | 3.29 |
| 161761CX | 17742 | 3-conductor (shielded) | 3 | 6' | Black | 18/3 | SVT | 4.49 | 4.05 |
| 132118CX | 17500 | 3-conductor | 3 | 6' | Black | 18/3 | SJT | 4.49 | 4.05 |
| 117583CX | 17502 | 3-conductor | 3 | 8' | Gray | 18/3 | SVT | 3.49 | 2.62 |
| 171096CX | 17758 | 3-conductor | 3 | 8' | Black | 18/3 | SJT | 3.95 | 3.55 |
| 229219CX | 9350819 | 3-conductor (shielded) | 3 | 8' | Black | 18/3 | SJT | 4.49 | 3.37 |
| 102023CX | 17501V | 3-conductor | 3 | 10' | Black | 18/3 | SVT | 3.95 | 3.39 |
| 117356CX | 8120-6177 | 3-conductor right angle | 4 | 6' | Gray | 18/3 | SVT | 3.95 | 3.19 |
| 173251CX | 17250RS | 3-conductor right angle (shielded) | 4 | 6' | Black | 18/3 | SVT | 3.29 | 2.99 |
| 177383CX | 17507 | 3-conductor right angle | 4 | 10' | Black | 18/3 | SJT | 3.95 | 3.59 |
| 84937CX | 17669-6 | 3-conductor piggy backed comp. pwr cord | 5 | 6' | Black | 18/3 | SJT | 6.95 | 6.29 |
| 28468CX | PEC | 3-conductor computer pwr supply ext. cord | 6 | 6' | Black | 18/3 | SVT | 3.90 | 2.95 |
| 175855CX | PECUL10 | 3-conductor computer pwr supply ext. cord | 6 | 10' | Black | 18/3 | SVT | 2.95 | 2.21 |
| 177447CX | MPC1 | 3-conductor monitor power adapter cord | 7 | 1' | Black | 18/3 | SVT | 2.95 | 2.49 |

* Thermoplastic Cord Jacket Type: SPT-2 (Flat); Junior duty; SVT (Round); Light service; SJT (Round); Junior service

IEEE 1284 Parallel/ Serial High Speed Cables

IEEE 1284 is the standard in high speed printing. Compatible with bidirectional communication data flow resulting in speeds up to 10 times faster than conventional applications.

- Double shielded with 28 AWG stranded twisted pair inner conductors
- Molded shells, PVC plastic
- Weight: 0.6 lbs.
- Color: beige (P/N 130067CX); black (P/N 161630CX); gray (P/N 223845CX)

| Part No. | Description | 1 | 10 |
|----------|------------------------------|---------|---------|
| 130067CX | 6' DB25 M-Cent. parallel 36M | \$11.95 | \$10.95 |
| 223845CX | 6' DB25 M-Cent. parallel 36M | 11.95 | 10.95 |
| 161630CX | 10' DB25 M-M serial cable | 14.95 | 13.49 |

IEEE 488 Cables

A variety of cable lengths are offered to ensure that IEEE system requirements are met (20 meters maximum length with a maximum of 15 devices). These cables are standard IEEE 488 with stackable 24-pin GPIB connectors on both ends. Color: gray



| Part No. | Description | Wt. (lbs.) | 1 | 10 | 25 |
|----------|-------------|------------|---------|---------|---------|
| 73154CX | 1 meter | 0.8 | \$36.49 | \$32.79 | \$29.49 |
| 115781CX | 2 meter | 1.2 | 37.95 | 34.19 | 30.95 |
| 115801CX | 4 meter | 2.0 | 38.95 | 36.19 | 31.95 |

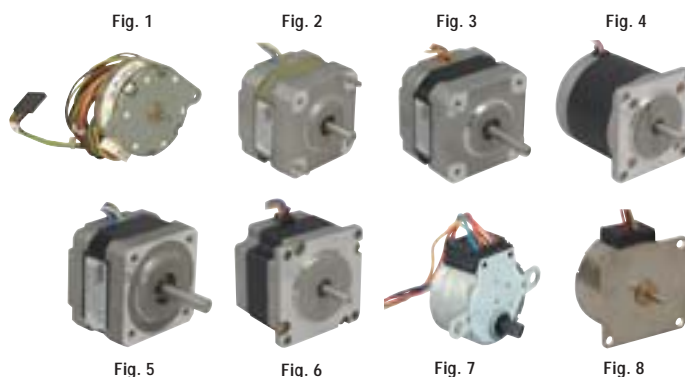
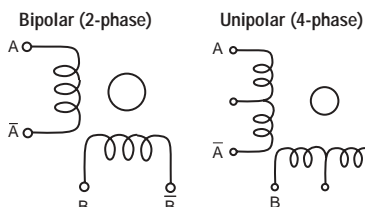
Apple Macintosh® Printer Cables

| Part No. | Description | 1 | 10 | 50 |
|----------|----------------|--------|--------|--------|
| 10604CX | 6' mini DIN8M | \$4.95 | \$4.45 | \$3.99 |
| 130024CX | 10' mini DIN8M | 5.99 | 5.39 | 4.85 |

GBM Bipolar and Unipolar Stepper Motors

Jameco just added many new two-phase bipolar and four-phase unipolar stepper motors for your precision applications. Be sure to check out the wide selection of 2 to 24 VDC models below.

- Bearing type: ball
- Dielectric strength: 500V, 50Hz/minute
- 18" lead wires
- Ambient temperature: -10°C to +55°C
- Insulation resistance: 100MΩ @ 500VDC
- Use P/N 161998CX, pg 234, for shaft coupler



GBM is an ISO-9001 Certified Company

| Part No. | Product No. | Fig. | Drive System | Voltage (VDC) | Step Angle | Phase Resis. (Ohms) | Curr. (mA) | Phase Inductance (mH) | Detent Torque (g-cm) | Holding Torque (g-cm) | Mounting Hole Space Diagonal (in.) | Mounting Holes (in.) | Shaft Dia. (in.) | Shaft Length (in.) | Motor Dia. (in.) | Motor Height (in.) | Weight (lbs.) | Pricing | | |
|----------|------------------------|------|--------------|---------------|------------|---------------------|------------|-----------------------|----------------------|-----------------------|------------------------------------|----------------------|------------------|--------------------|------------------|--------------------|---------------|---------|---------|---------|
| | | | | | | | | | | | | | | | | | | 1 | 10 | 50 |
| 237526CX | 42BYGH001 | 3 | Bipolar | 2 | 1.8 | 2.1 | 950 | 2.3 | 200 | 1700 | 1.22 | 0.10 | 0.20 | 0.95 | 1.67 | 1.34 | 0.50 | \$16.49 | \$14.85 | \$13.35 |
| 237497CX | 39BYG101-01 | 2 | Bipolar | 2.7 | 1.8 | 6.8 | 400 | 6.5 | 150 | 650 | 1.22 | 0.10 | 0.20 | 0.75 | 1.54 | 0.79 | 0.26 | 15.95 | 14.35 | 12.95 |
| 237420CX | 35BYG002 | 3 | Bipolar | 3.2 | 1.8 | 4.8 | 800 | 3 | 15 | 50 | 1.02 | 0.10 | 0.20 | 0.83 | 1.38 | 1.02 | 0.30 | 15.95 | 14.35 | 12.95 |
| 237489CX | 39BYG001 | 2 | Bipolar | 5 | 1.8 | 5 | 1000 | — | 150 | 1800 | 1.22 | 0.10 | 0.20 | 0.91 | 1.54 | 1.34 | 0.44 | 15.95 | 14.35 | 12.95 |
| 237737CX | 42BY48H08 | 8 | Bipolar | 5 | 7.5 | 9.1 | 550 | — | 130 | 630 | 1.95 | 0.14 | 0.12 | 0.39 | 1.65 | 0.87 | 0.28 | 7.89 | 7.09 | 6.39 |
| 237577CX | 57BYG061 | 4 | Bipolar | 6 | 1.8 | 12 | 500 | 24 | — | 3569 | 1.86 | 0.20 | 0.25 | 0.83 | 2.29 | 1.61 | 1.00 | 29.95 | 26.95 | 24.25 |
| 237518CX | 42BYG017 | 2 | Bipolar | 6.3 | 1.8 | 15 | 420 | 16 | 150 | 1400 | 1.22 | 0.10 | 0.20 | 0.51 | 1.67 | 1.34 | 0.50 | 16.49 | 14.85 | 13.35 |
| 237454CX | 39BYG201 | 2 | Bipolar | 9.6 | 1.8 | 20 | 480 | — | 200 | 1000 | 1.22 | 0.10 | 0.20 | 0.20 | 1.54 | 0.98 | 0.44 | 16.95 | 15.25 | 13.75 |
| 237411CX | 35BYG005 | 2 | Bipolar | 12 | 1.8 | 20 | 500 | — | 1.5 | 10 | 1.02 | 0.10 | 0.20 | 0.83 | 1.38 | 1.10 | 0.37 | 15.95 | 14.35 | 12.95 |
| 155459CX | 42BYG023 ¹ | 2 | Bipolar | 12 | 1.8 | 30 | 400 | 36 | 220 | 2100 | 1.73 | 0.10 | 0.20 | 0.60 | 1.70 | 1.30 | 0.50 | 17.95 | 16.29 | 14.59 |
| 237471CX | 39BYG401A | 2 | Bipolar | 12 | 1.8 | 30 | 400 | 32 | 200 | 2100 | 1.22 | 0.10 | 0.20 | 0.95 | 1.54 | 1.34 | 0.44 | 19.49 | 17.55 | 15.79 |
| 237817CX | 25BY2414 | 7 | Bipolar | 12 | 15 | 27 | 440 | 15.5 | 48 | 140 | 1.26 | 0.11 | 0.08 | 0.37 | 0.98 | 0.59 | 0.08 | 7.19 | 6.45 | 5.79 |
| 237462CX | 39BYG401 | 2 | Bipolar | 14 | 1.8 | 31 | 400 | 32 | 200 | 2300 | 1.22 | 0.10 | 0.20 | 0.95 | 1.54 | 1.34 | 0.44 | 19.49 | 17.55 | 15.79 |
| 237446CX | 35BYG008 | 2 | Bipolar | 24 | 1.8 | 1.3 | 1600 | 1 | 1 | 9 | 1.02 | 0.10 | 0.20 | 0.83 | 1.38 | 1.14 | 0.33 | 16.95 | 15.25 | 13.75 |
| 237569CX | 57BYG009 | 4 | Unipolar | 2.4 | 1.8 | 1 | 2400 | 1.5 | — | 5914 | 1.86 | 0.20 | 0.25 | 0.83 | 2.29 | 2.20 | 1.40 | 32.29 | 29.09 | 26.15 |
| 237614CX | 57BYGH801 | 6 | Unipolar | 3.3 | 1.8 | 2.2 | 1500 | 2.2 | — | 5608 | 1.86 | 0.20 | 0.25 | 0.83 | 2.24 | 2.01 | 1.32 | 35.19 | 31.69 | 28.49 |
| 237534CX | 42BYGH102 | 5 | Unipolar | 3.6 | 1.8 | 3 | 1200 | 32 | 220 | 3000 | 1.22 | 0.10 | 0.20 | 0.95 | 1.67 | 1.57 | 0.50 | 17.95 | 16.15 | 14.55 |
| 237551CX | 57BYG008 | 4 | Unipolar | 4 | 1.8 | 3.1 | 1300 | 4.4 | — | 4996 | 1.86 | 0.20 | 0.25 | 0.83 | 2.29 | 2.01 | 1.30 | 29.95 | 26.95 | 24.25 |
| 237593CX | 85BYGH450 | 6 | Unipolar | 4.4 | 1.8 | 2.2 | 2000 | — | — | 21414 | 2.76 | 0.26 | 0.51 | 1.38 | 3.35 | 2.95 | 4.90 | 161.95 | 145.75 | 131.19 |
| 237622CX | 57BYGH802 | 6 | Unipolar | 4.8 | 1.8 | 3.2 | 1500 | 2.9 | — | 8157 | 1.86 | 0.20 | 0.25 | 0.83 | 2.24 | 2.20 | 1.54 | 37.69 | 33.95 | 30.55 |
| 237606CX | 57BYGH001 | 6 | Unipolar | 5 | 1.8 | 5 | 1000 | — | — | 3976 | 1.86 | 0.20 | 0.25 | 0.83 | 2.24 | 1.61 | 1.10 | 32.49 | 29.25 | 26.35 |
| 237825CX | 25BY4801 | 7 | Unipolar | 5 | 7.5 | 10 | 500 | — | 45 | 110 | 1.38 | 0.14 | 0.08 | 0.35 | 0.98 | 0.56 | 0.07 | 6.95 | 6.25 | 5.65 |
| 237673CX | 35BY48B06 | 1 | Unipolar | 5 | 7.5 | 10 | 500 | 65 | 65 | 250 | 1.65 | 0.13 | 0.08 | 0.45 | 1.38 | 0.59 | 0.15 | 6.49 | 5.85 | 5.25 |
| 237770CX | 20BY20H01 | 7 | Unipolar | 5 | 18 | 10 | 500 | — | 18 | 75 | 0.98 | 0.09 | 0.06 | 0.34 | 0.79 | 0.71 | 0.05 | 5.59 | 5.09 | 4.55 |
| 223870CX | 57BYG070 | 4 | Unipolar | 5.4 | 1.8 | 3.6 | 1500 | 6 | 977 | 8974 | 2.65 | 0.20 | 0.25 | 0.80 | 2.20 | 2.20 | 2.00 | 49.95 | 44.95 | 40.49 |
| 237631CX | 57BYGH803 | 6 | Unipolar | 6.3 | 1.8 | 4.2 | 1500 | — | — | 14276 | 1.86 | 0.20 | 0.25 | 0.83 | 2.24 | 2.99 | 2.43 | 64.59 | 58.15 | 52.35 |
| 172558CX | 42BYG014 | 2 | Unipolar | 8.5 | 1.8 | 19 | 450 | 13 | 150 | 1300 | 1.22 | 0.50 | 0.20 | 0.87 | 1.67 | 1.34 | 0.50 | 16.49 | 14.85 | 13.35 |
| 237711CX | 42BY48H06 | 8 | Unipolar | 9 | 7.5 | 20 | 450 | 18.5 | 130 | 800 | 1.95 | 0.14 | 0.12 | 0.39 | 1.65 | 0.87 | 0.30 | 7.89 | 7.09 | 6.39 |
| 237788CX | 25BY2402 | 7 | Unipolar | 9 | 15 | 50 | 180 | 14 | 48 | 100 | 1.26 | 0.13 | 0.08 | 0.35 | 0.98 | 0.59 | 0.08 | 6.95 | 6.25 | 5.65 |
| 237649CX | 25BY2403 | 7 | Unipolar | 9 | 15 | 20 | 450 | 4.5 | 48 | 130 | 1.38 | 0.14 | 0.08 | 0.33 | 0.98 | 0.56 | 0.07 | 4.69 | 4.25 | 3.79 |
| 172646CX | 42BYG205 | 4 | Unipolar | 9.6 | 1.8 | 75 | 480 | 15 | 220 | 2300 | 1.73 | 0.10 | 0.20 | 0.90 | 1.70 | 1.40 | 0.50 | 17.95 | 16.19 | 14.55 |
| 173180CX | 30BYJ02AH ² | 7 | Unipolar | 12 | .09 | 200 | 60 | 49.5 | 400 | 736 | 1.42 | 0.14 | 0.19 | 0.36 | 1.18 | 0.68 | 0.10 | 11.49 | 10.34 | 9.31 |
| 224021CX | 42BYG016 | 2 | Unipolar | 12 | 1.8 | 75 | 160 | 40 | 150 | 900 | 1.73 | 0.10 | 0.20 | 0.70 | 1.70 | 1.30 | 0.50 | 16.95 | 15.25 | 13.75 |
| 155432CX | 42BYG228 | 2 | Unipolar | 12 | 1.8 | 30 | 400 | 23 | 220 | 2000 | 1.73 | 0.10 | 0.20 | 0.90 | 1.70 | 1.50 | 0.50 | 17.95 | 16.29 | 14.59 |
| 237542CX | 57BYG007 | 4 | Unipolar | 12 | 1.8 | 32 | 380 | 30 | — | 2957 | 1.86 | 0.20 | 0.25 | 0.83 | 2.29 | 1.61 | 1.00 | 25.95 | 23.35 | 20.99 |
| 162026CX | 57BYG084 | 4 | Unipolar | 12 | 1.8 | 20 | 600 | 22 | 725 | 6000 | 2.65 | 0.20 | 0.25 | 1.00 | 2.20 | 2.00 | 1.30 | 26.95 | 24.29 | 21.85 |
| 238537CX | 42BYGH404 | 5 | Unipolar | 12 | 1.8 | 30 | 400 | 25 | 250 | 3200 | 1.22 | 0.10 | 0.20 | 0.95 | 1.67 | 1.89 | 0.60 | 19.95 | 17.95 | 16.15 |
| 237833CX | 25BY4803 | 7 | Unipolar | 12 | 7.5 | 50 | 240 | 16 | 45 | 110 | 1.34 | 0.09 | 0.08 | 0.27 | 0.98 | 0.59 | 0.07 | 6.95 | 6.25 | 5.65 |
| 237681CX | 35BY48B069 | 1 | Unipolar | 12 | 7.5 | 50 | 270 | 28 | 65 | 300 | 1.65 | 0.13 | 0.08 | 0.26 | 1.42 | 0.85 | 0.15 | 6.49 | 5.85 | 5.25 |
| 237892CX | 42BY48B03 | 8 | Unipolar | 12 | 7.5 | 57 | 210 | 18 | 105 | 300 | — | — | 0.12 | 0.30 | 1.65 | 0.58 | 0.21 | 10.45 | 9.39 | 8.45 |
| 238158CX | 35BY48BH10 | 1 | Unipolar | 12 | 7.5 | 42 | 286 | 25 | 90 | 400 | 1.65 | 0.13 | 0.08 | 0.26 | 1.38 | 0.85 | 0.19 | 6.89 | 6.19 | 5.59 |
| 237930CX | 42BY48B14 | 8 | Unipolar | 12 | 7.5 | 50 | 240 | — | 145 | 450 | 1.95 | 0.14 | 0.12 | 0.39 | 1.65 | 0.59 | 0.22 | 8.95 | 8.09 | 7.25 |
| 213321CX | 35BY48-27 | 1 | Unipolar | 12 | 7.5 | 15 | 800 | 68 | 90 | 460 | 1.96 | 0.13 | 0.08 | 0.25 | 1.38 | 0.83 | 0.20 | 17.95 | 14.35 | 11.95 |
| 238131CX | 35BY48BH05 | 1 | Unipolar | 12 | 7.5 | 15 | 800 | 10 | 90 | 460 | 1.65 | 0.13 | 0.08 | 0.26 | 1.38 | 0.85 | 0.19 | 6.89 | 6.19 | 5.59 |
| 237884CX | 42BY48B02 | 8 | Unipolar | 12 | 7.5 | 40 | 300 | 28 | 130 | 500 | — | — | 0.12 | 0.30 | 1.65 | 0.57 | 0.21 | 10.45 | 9.39 | 8.45 |
| 237657CX | 25BY2406 | 7 | Unipolar | 12 | 15 | 30 | 400 | 7.5 | 48 | 120 | 1.26 | 0.13 | 0.08 | 0.35 | 0.98 | 0.59 | 0.07 | 4.69 | 4.25 | 3.79 |
| 237972CX | 28BYJ01A1 | 7 | Unipolar | 12 | 5.625/64 | 300 | 40 | — | 300 | 552 | 1.38 | 0.17 | 0.20 | 0.33 | 1.10 | 0.75 | 0.09 | 4.19 | 3.79 | 3.39 |
| 237981CX | 28BYJ01C | 7 | Unipolar | 12 | 5.625/64 | 300 | 40 | — | 350 | 552 | 1.38 | 0.14 | 0.12 | 0.20 | 1.10 | 0.78 | 0.10 | 4.19 | 3.79 | 3.39 |
| 237753CX | 28BYJ012A | 7 | Unipolar | 12 | 5.625/64 | 200 | 60 | — | 350 | 736 | 1.38 | 0.16 | 0.12 | 0.24 | 1.10 | 0.75 | 0.08 | 3.59 | 3.25 | 2.89 |
| 237745CX | 28BYJ01A | 7 | Unipolar | 12 | 5.625/64 | 200 | 60 | — | 350 | 736 | 1.38 | 0.16 | 0.12 | 0.24 | 1.10 | 0.75 | 0.10 | 3.59 | 3.25 | 2.89 |

¹ 155459CX: Dual shaft ² 173180CX: Gear ratio 85.25:1

GBM Bipolar and Unipolar Stepper Motors (Continued)

| Part No. | Product No. | Fig. (pg. 90) | Drive System | Voltage (VDC) | Step Angle | Phase Resis. (Ohms) | Curr. (mA) | Phase Inductance (mH) | Detent Torque (g-cm) | Holding Torque (g-cm) | Mounting Hole Space Diagonal (in.) | Mounting Holes (in.) | Shaft Dia. (in.) | Shaft Length (in.) | Motor Dia. (in.) | Motor Height (in.) | Weight (lbs.) | Pricing | | |
|----------|-------------|------------------|-----------------|------------------|---------------|---------------------------|---------------|-----------------------------|----------------------------|-----------------------------|--|----------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------|---------|--------|--------|
| | | | | | | | | | | | | | | | | | | 1 | 10 | 50 |
| 238043CX | 30BYJ05-PH | 7 | Unipolar | 12 | 7.5/85.25 | 300 | 40 | — | 350 | 552 | 1.42 | 0.17 | 0.20 | 0.30 | 1.18 | 0.69 | 0.10 | \$4.79 | \$4.29 | \$3.89 |
| 237761CX | 30BYJ011 | 7 | Unipolar | 12 | 7.5/85.25 | 300 | 40 | — | 350 | 644 | 1.38 | 0.18 | 0.12 | 0.20 | 1.18 | 0.69 | 0.10 | 3.59 | 3.25 | 2.89 |
| 238019CX | 30BYJ01C1 | 7 | Unipolar | 12 | 7.5/85.25 | 300 | 40 | — | 350 | 644 | 1.54 | 0.17 | 0.12 | 0.20 | — | — | 0.10 | 4.79 | 4.29 | 3.89 |
| 238086CX | 35BYJ03 | 7 | Unipolar | 12 | 7.5/85.25 | 400 | 40 | — | 450 | 828 | 1.65 | 0.16 | 0.20 | 0.33 | 1.42 | 0.67 | 0.12 | 4.95 | 4.45 | 3.99 |
| 238035CX | 30BYJ03C | 7 | Unipolar | 12 | 7.5/85.25 | 160 | 75 | — | 350 | 920 | 1.54 | 0.17 | 0.12 | 0.44 | 1.42 | 0.69 | 0.11 | 4.79 | 4.29 | 3.89 |
| 238060CX | 35BYJ02 | 7 | Unipolar | 12 | 7.5/85.25 | 200 | 60 | — | 400 | 1104 | 1.65 | 0.16 | 0.20 | 0.33 | 1.42 | 0.67 | 0.13 | 4.95 | 4.45 | 3.99 |
| 238078CX | 35BYJ02A | 7 | Unipolar | 12 | 7.5/85.25 | 200 | 60 | — | 400 | 1104 | 1.85 | 0.16 | 0.20 | 0.33 | 1.38 | 0.69 | 0.13 | 4.95 | 4.45 | 3.99 |
| 238051CX | 35BYJ01 | 7 | Unipolar | 12 | 7.5/85.25 | 130 | 92 | — | 350 | 1472 | 1.65 | 0.16 | 0.20 | 0.33 | 1.42 | 0.69 | 0.12 | 4.95 | 4.45 | 3.99 |
| 237956CX | 42BY48H05 | 8 | Unipolar | 14 | 7.5 | 70 | 200 | — | 130 | 450 | — | 0.14 | 0.12 | 0.39 | 1.65 | 0.87 | 0.27 | 8.95 | 8.09 | 7.25 |
| 237438CX | 35BYG007 | 5 | Unipolar | 15 | 1.8 | 28 | 400 | — | 12 | 70 | 1.02 | 0.10 | 0.20 | 0.83 | 1.38 | 1.10 | 0.37 | 16.95 | 15.25 | 13.75 |
| 237702CX | 35BY48BH02 | 1 | Unipolar | 16.2 | 7.5 | 60 | 270 | 50 | 90 | 450 | 1.65 | 0.13 | 0.08 | 0.33 | 1.38 | 0.59 | 0.20 | 6.49 | 5.85 | 5.25 |
| 237665CX | 25BY2407 | 7 | Unipolar | 16.2 | 15 | 85 | 190 | 19 | 48 | 100 | 1.26 | 0.16 | 0.08 | 0.49 | 0.98 | 0.56 | 0.10 | 4.69 | 4.25 | 3.79 |
| 237796CX | 25BY2408 | 7 | Unipolar | 16.2 | 15 | 60 | 270 | 16 | 48 | 120 | 1.26 | 0.17 | 0.08 | 0.55 | 0.98 | 0.56 | 0.10 | 6.95 | 6.25 | 5.65 |
| 237841CX | 25BY4806 | 7 | Unipolar | 20 | 7.5 | 50 | 400 | 16 | 45 | 155 | 1.26 | 0.13 | 0.08 | 0.49 | 0.98 | 0.56 | 0.10 | 6.95 | 6.25 | 5.65 |
| 237850CX | 25BY4807 | 7 | Unipolar | 20 | 7.5 | 50 | 400 | 16 | 45 | 155 | 1.38 | 0.14 | 0.08 | 0.22 | 0.98 | 0.87 | 0.10 | 6.95 | 6.25 | 5.65 |
| 237868CX | 25BY4808 | 7 | Unipolar | 20 | 7.5 | 50 | 400 | 16 | 45 | 155 | 1.38 | 0.14 | 0.08 | 0.22 | 0.98 | 0.87 | 0.10 | 6.95 | 6.25 | 5.65 |
| 237876CX | 25BY4809 | 7 | Unipolar | 20 | 7.5 | 50 | 400 | 16 | 45 | 155 | 1.42 | 0.35 | 0.08 | 0.22 | 0.98 | 0.87 | 0.10 | 6.95 | 6.25 | 5.65 |
| 238115CX | 35BY48B08 | 1 | Unipolar | 24 | 7.5 | 75 | 320 | 38 | 65 | 270 | 1.65 | — | 0.08 | 0.35 | 1.38 | 0.59 | 0.15 | 6.89 | 6.19 | 5.59 |
| 238107CX | 35BY48B07 | 1 | Unipolar | 24 | 7.5 | 11 | 240 | 70 | 65 | 330 | 1.65 | — | 0.08 | 0.26 | 1.38 | 0.59 | 0.15 | 6.89 | 6.19 | 5.59 |
| 238140CX | 35BY48BH07 | 1 | Unipolar | 24 | 7.5 | 110 | 240 | 70 | 90 | 350 | 1.65 | 0.13 | 0.08 | 0.26 | 1.38 | 0.85 | 0.20 | 6.89 | 6.19 | 5.59 |
| 237690CX | 35BY48BH01 | 1 | Unipolar | 24 | 7.5 | 165 | 145 | 85 | 90 | 400 | 1.65 | 0.13 | 0.08 | 0.33 | 1.38 | 0.59 | 0.19 | 6.49 | 5.85 | 5.25 |
| 237921CX | 42BY48B08 | 8 | Unipolar | 24 | 7.5 | 75 | 320 | 33 | 145 | 600 | 1.95 | 0.14 | 0.12 | 0.39 | 1.65 | 0.59 | 0.20 | 8.95 | 8.09 | 7.25 |
| 237905CX | 42BY48B04 | 8 | Unipolar | 24 | 7.5 | 110 | 220 | 53 | 145 | 630 | 1.95 | 0.14 | 0.12 | 0.45 | 1.65 | 0.59 | 0.20 | 8.95 | 8.09 | 7.25 |
| 237913CX | 42BY48B04M | 8 | Unipolar | 24 | 7.5 | 120 | 200 | 57 | 145 | 630 | 1.95 | — | 0.12 | 0.45 | 1.65 | 0.59 | 0.22 | 8.95 | 8.09 | 7.25 |
| 237948CX | 42BY48H02 | 8 | Unipolar | 24 | 7.5 | 48 | 500 | — | 130 | 630 | 1.95 | 0.14 | 0.12 | 0.39 | 1.65 | 0.87 | 0.30 | 8.95 | 8.09 | 7.25 |
| 237729CX | 42BY48H07 | 8 | Unipolar | 24 | 7.5 | 85 | 280 | 78 | 130 | 780 | 1.95 | 0.14 | 0.12 | 0.39 | 1.65 | 0.87 | 0.27 | 7.89 | 7.09 | 6.39 |
| 237809CX | 25BY2409 | 7 | Unipolar | 24 | 15 | 118 | 200 | 22 | 48 | 100 | 1.37 | 0.13 | 0.08 | 0.37 | 0.98 | 0.59 | 0.10 | 7.19 | 6.45 | 5.79 |
| 238123CX | 35BY48BH03 | 1 | Unipolar | 28.8 | 7.5 | 115 | 278 | 85 | 90 | 450 | 1.65 | 0.13 | 0.08 | 0.26 | 1.38 | 0.85 | 0.19 | 6.89 | 6.19 | 5.59 |
| 237585CX | 110BYG450C | 4 | Unipolar | 80-200 | 0.9/1.8 | 0.18 | 6000 | 2 | 3060 | 45,900 | — | 0.33 | 0.63 | 2.13 | 4.33 | 5.10 | 8.40 | 179.95 | 161.95 | 145.75 |

Bipolar and Unipolar Stepper Motors

- Excellent for precision control
- Can be operated in forward/reverse mode

Quantity
SAVE

Fig. 1



SALE

Fig. 2



Fig. 3



Fig. 4



| Part No. | Mfr. Cross Ref. No. | Fig. | Drive System | Volt. (VDC) | Step Angle | Phase Resis. (Ohms) | Curr. (mA) | Phase Inductance (mH) | Detent Torque (g-cm) | Holding Torque (g-cm) | Mounting Hole Space Diagonal (in.) | Mounting Holes (in.) | Shaft Dia. (in.) | Shaft Length (in.) | Motor Dia. (in.) | Motor Height (in.) | Pricing | | |
|----------|------------------------|------|--------------|-------------|------------|---------------------|------------|-----------------------|----------------------|-----------------------|------------------------------------|----------------------|------------------|--------------------|------------------|--------------------|---------|--------|--------|
| | | | | | | | | | | | | | | | | | 1 | 10 | 50 |
| 117954CX | LB82773-M1 | 1* | Bipolar | 5 | 7.5 | 6 | 800 | 7 | 100 | 1080 | 2.60 | 1.95 | 0.250 | 0.75 | 2.25 | 1.00 | \$4.29 | \$3.89 | \$3.09 |
| 163395CX | 5017-935 ¹ | 2 | Bipolar | 8.4 | 0.9 | 30 | 280 | 25 | 36 | 791 | 1.73 | 0.15 | 0.155 | 0.29 | 1.64 | 1.20 | 4.95 | 4.21 | \$3.16 |
| 163408CX | 4017-806 ¹ | 2 | Bipolar | 9.2 | 1.8 | 38 | 240 | 52 | 36 | 664 | 1.73 | 0.15 | 0.155 | 0.23 | 1.66 | 1.25 | 2.49 | 2.15 | 1.65 |
| 105881CX | SM4203 ² | 3* | Bipolar | 12 | 3.6 | 25 | 480 | 31 | 80 | 600 | 1.73 | 0.11 | 0.197 | 0.43 | 1.66 | 1.31 | 6.49 | 5.85 | 5.29 |
| 164056CX | M82101-P1 | 1 | Unipolar | 5 | 7.5 | 20 | 255 | 5 | 9 | 94 | 1.4 | 0.13 | 0.078 | 0.35 | 1.00 | 0.46 | 1.85 | 1.69 | 1.55 |
| 171601CX | PF35T48L4 ³ | 1 | Unipolar | 7 | 3.6 | 20 | 350 | 9 | 40 | 680 | 1.68 | 0.14 | 0.078 | 0.47 | 1.38 | 0.58 | 4.99 | 4.49 | 3.99 |
| 210391CX | STP42N196S | 4 | Unipolar | 24 | 3.75 | 110 | 436 | 60 | 60 | 600 | 1.95 | 0.13 | 0.118 | 0.42 | 1.65 | 0.54 | 4.95 | 4.19 | \$3.15 |
| 210382CX | 5620 | 1 | Unipolar | 24 | 7.5 | 100 | 436 | 60 | 40 | 380 | 1.67 | 0.13 | 0.078 | 0.40 | 1.38 | 0.58 | 2.99 | 2.69 | 2.45 |

¹ 163395CX/163408CX: Dual shaft ² 105881CX: P/N 25216CX (IC, MC3479P, pg 22) bi-phase stepper motor driver can be used to operate; Use P/N 161998CX for shaft coupler, see pg 234

³ 171601CX: Dual shaft w/ 10 tooth gear * Shown below

5VDC Bipolar Stepper Motor

7.5° / Step

- No. of phases: 2
- Detent torque: 100 g-cm
- Holding torque: 1080 g-cm
- Phase resistance: 6Ω
- Phase inductance: 7mH
- Current: 800mA
- Mounting hole size: 1.95"
- Shaft size: 0.75"L x 0.250"Dia.
- Motor size: 2.25"Dia. x 1.00"H



Quantity
SAVE

| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 50 |
|----------|---------------------|--------|--------|--------|
| 117954CX | LB82773-M1 | \$4.29 | \$3.89 | \$3.09 |

12VDC Bipolar Stepper Motor

3.6° / Step

- No. of phases: 2
- Detent torque: 80 g-cm
- Holding torque: 600 g-cm
- Phase resistance: 25Ω
- Phase inductance: 31mH
- Current: 480mA
- Mounting hole size: 0.11"
- Shaft size: 0.43"L x 0.197"Dia.
- Motor size: 1.66"Dia. x 1.31"H



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 50 |
|----------|---------------------|--------|--------|--------|
| 105881CX | SM4203 | \$6.49 | \$5.85 | \$5.29 |

We'll Send It Today!

Don't worry about backorders. Over 99% of our products are in stock! Just place your order by 6PM EST for same business day shipment.



Scott Edwards Electronics, Inc.

Serial Servo Controller Module

- Controls 8 pulse-proportional servos
- Receives serially at 2400 or 9600 baud
- Module is addressable, allowing two units to share the same line to control a total of 16 servos
- Connections to serial input can be established using a modular jack (P/N 115553CX, pg 66) or modular adapter from DB9 to RJ11 (P/N 114737CX, pg 66)
- Size (PCB): 1.9"L x 1.4"W • One-year warranty



| Part No. | Description | 1 | 10 |
|----------|-------------------|---------|---------|
| 151001CX | Mini SSC II | \$43.95 | \$41.79 |

PONTECH Servo Controller Board

- Controls 1 to 8 servos per board, 8-bit precision
- Interface to PC through RS-232 port @ 2400-19,200bps
- 5 channel, 8-bit A/D input port for reading 0 to 5V
- IR-receiver & transmitter feature
- Source/sink: 25mA per pin • 8k EEPROM
- Size: 1.7"L x 1.4"W (main board); 1.1"L x 0.9"W (infrared board)



Includes: Manual, supplement & sample code software

| Part No. | Description | 1 | 10 |
|----------|------------------------------|---------|---------|
| 153648CX | Servo controller board | \$84.95 | \$79.99 |

See our extensive motor selection on pages 93-96.



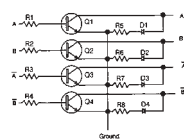
rmv electronics

12-Bit Stepper Motor Control and Analog/Digital DAC Board

- High speed serial port interface up to 230.4kbps
- 4 channels with precision signal conditioning – 100mV, 2.5V and 5.0V inputs
- 24 digital I/O (TTL) and 11 analog channels with 12-bit resolution
- PWM, period measurement and stepper motor functions
- Free 32-bit DLL, OXC and Labview driver for rapid system development
- Size: 6.0"L x 2.6"W • Weight: 0.7 lbs.



Driver Schematic



Requires: External driver circuit parts kit (P/N 208573CX, below) – consisting of 5 ea. 1k Ω 1/4W resistors, 5 ea. 330 Ω 1/4W resistors, 5 ea. MJE 3055T transistors, and 5 ea. 1N4003 diodes

| Part No. | Description | 1 | 10 |
|----------|-----------------------------------|----------|----------|
| 109911CX | Stepper motor control board | \$129.95 | \$116.95 |
| 208573CX | Unipolar circuit parts kit | 3.49 | 3.15 |

32-Bit Stepper Motor Controller

One Axis

- Controls one bipolar stepper motor with 32-bit absolute position
- Interface to PC through RS232 or RS485 @ 2400-19,200 bps
- Full, half or wave step modes
- Multiple boards may share same serial line (RS485 only)
- 2 channel general purpose 8-bit A/D input port for reading 0 to 5V
- 4-bit digital input for home limits
- Addressable up to 255 boards
- Size: 4.4"L x 2.3"H • Weight: 0.7 lbs.



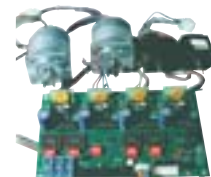
Includes: Manual and sample code software

| Part No. | Description | 1 | 10 |
|----------|-------------------------|----------|----------|
| 153621CX | 32-bit controller | \$158.95 | \$150.99 |

rmv electronics

Multi-Stepper Motor Control Board

- Simultaneous/independent control of up to 16 stepper motors through a single serial port
- High-speed serial communication interface 9.6kbps-230.4kbps
- 11 analog channels, A/D converter, 12-bit resolution
- 24-bit position register; can be read while motor is moving
- Linear acceleration/deceleration capability up to 8500 step/sec.
- Full step (monophasic and biphasic), half step and external driver modes
- Current-mode coil driver up to 2A/45V
- Automatic power down prevents motor overheating
- External driver control outputs: step, direction and power control
- 26 digital I/O and two SPI interfaces for control of external devices
- 32 bits DDL interface for Windows® 9X, NT & Linux
- Internal FIFO RAM (128 bytes) allows customized motion profiles
- Size: 7.7"L x 5.0"W x 1.0"H • Weight: 0.7 lbs.



Shown w/ motors – not included

| Part No. | Description | 1 | 10 |
|----------|-----------------------------------|----------|----------|
| 168727CX | Stepper motor control board | \$399.95 | \$379.95 |

Electric Motors and Control Techniques

TAB Publishing Explains how different types of motors operate, and how electronic control devices can be used to improve efficiency in a wide range of applications. (294 pages, 1994)

- Size: 7.3" x 9.2" • Weight: 1.1 lbs.



| Part No. | Description | Price |
|----------|---------------------------------|---------|
| 137162CX | Electric Motors & Control | \$24.95 |

KAE

Industrial Motion Controllers for Brush, Brushless and Stepper Motors

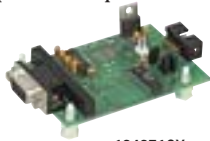
All JR Kerr Automation Engineering controllers include integrated power amplifiers. Up to 32 controllers can be daisy-chained from a single full-duplex RS485 port. For RS-232 to RS-485 adapter see P/N 184971CX (below).



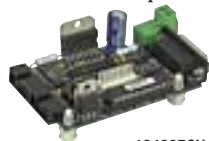
184989CX



185009CX



184971CX



184997CX



184962CX



184954CX

184989CX: PIC-SERVO motor control board

- For brush-type DC motors with 2 or 3 channel incremental encoders
- P.I.D. Servo control, trapezoidal position profiling, velocity mode, 32-bit resolution
- Integrated 12 to 48VDC supply power amplifier @ 3A continuous, 6A peak
- Limit switch inputs, general purpose analog input, PWM, DIR output for use with external amps

185009CX: PIC-SERVO 3PH motor control board for brush or brushless motors

- For 3-phase brushless motors with hall effect sensors or conventional DC brush-type motors
- High current amplifier: 7A continuous, 10A peak, 12 to 48VDC supply
- Same features as 184989CX above but with support for linear & circular interpolation using the PIC-SERVO CMC chipset

184971CX: Z232-485 serial port adapter

- Lets you operate the controllers above from any standard RS-232 port

| Part No. | Description | Size (L" x W" x H") | 1 | 10 |
|----------|---------------|-----------------------|----------|----------|
| 184989CX | PIC-SERVO | 3.1 x 2.1 x 0.9 | \$179.95 | \$161.95 |
| 185009CX | PIC-SERVO 3PH | 3.1 x 3.1 x 1.0 | 239.95 | 215.95 |
| 184971CX | Z232-485 | 3.1 x 2.1 x 0.5 | 59.95 | 53.95 |

184997CX: PIC-STEP motor control board

- Integrated indexer and driver for 2 or 4 phase stepper motors
- Full/half step bipolar chopper drive, 2A per phase, 7.5 to 46VDC supply
- Trapezoidal position profiling, velocity mode, up to 50,000 steps per second
- Limit switch inputs, general purpose outputs, step/dir outputs for use with external drivers

184962CX: PIC-I/O multifunction I/O control board

- 12 I/O bits software configurable as inputs or outputs
- One counter input
- Three 8-bit analog inputs, two PWM outputs with high current drivers

184954CX: Simple sequencer stand-alone controller

- Programmable master controller for building stand-alone systems with the controllers above
- Plugs into a socket on the Z232-485 board (P/N 184971CX, left)

| Part No. | Description | Size (L" x W" x H") | 1 | 10 |
|----------|------------------|-----------------------|----------|----------|
| 184997CX | PIC-STEP | 3.1 x 2.1 x 0.9 | \$159.95 | \$143.95 |
| 184962CX | PIC-I/O | 3.1 x 2.1 x 0.6 | 99.95 | 89.95 |
| 184954CX | Simple sequencer | 2.1 x 1.0 x 0.4 | 59.95 | 53.95 |

1.5-112VDC Motors

Jameco has a broad selection of DC Motors not immediately available anywhere else! In fact, we're the only place in the country where you can buy them off-the-shelf. And because of our broad selection, major custom-design motor manufacturers send their customers to us! Be sure to check out all the new products below.

Typical applications:

- RC cars and airplanes
- Arcade games
- Vending machines
- Office automation products
- Motorized toys
- Vacuum cleaners
- Hair removers
- Blow dryers
- Tire pumps
- Paper shredders
- Cordless power tools

NICHIBO

| Part Number | Product No. | Fig. | Nominal Voltage (VDC) | Voltage Range (VDC) | @ Maximum Efficiency | | | Efficiency | Terminal Type | Shaft Dia. | Shaft Length | Size (D" x L") | Pricing | | |
|-------------|----------------|------|-----------------------|---------------------|----------------------|-------------|---------------|------------|---------------|------------|--------------|----------------|---------|--------|--------|
| | | | | | Current (Amps) | Speed (RPM) | Torque (g-cm) | | | | | | 1 | 10 | 100 |
| 231917CX | FE-260-2670 | 5 | 1.5 | 1.5-3 | 0.66 | 3700 | 10.5 | 42.9 | Solder | 0.078 | 0.314 | 0.937 x 1.063 | \$9.99 | \$8.89 | \$8.85 |
| 231861CX | UE-260-2850 | 6 | 1.5 | 1.5-3 | 1.15 | 4260 | 13.4 | 34.9 | Solder | 0.078 | 0.314 | 0.944 x 1.063 | 1.25 | 1.09 | .99 |
| 231853CX | UE-260-2838 | 6 | 1.5 | 1.5-2.4 | 1.57 | 5600 | 15.5 | 39.0 | Solder | 0.078 | 0.314 | 0.944 x 1.063 | 1.25 | 1.09 | .99 |
| 232135CX | FF-050S-13130 | 3 | 2 | 2-4 | 0.11 | 3000 | 3 | 42.0 | Solder | 0.059 | 0.433 | 0.610 x 1.059 | 2.49 | 2.25 | 1.99 |
| 231909CX | FE-260-18130 | 5 | 3 | 1.5-4.5 | 0.36 | 4780 | 10.3 | 49.6 | Solder | 0.078 | 0.314 | 0.937 x 1.063 | .99 | .89 | .85 |
| 231888CX | UE-260-20120 | 6 | 3 | 1.5-4.5 | 0.45 | 4780 | 12.9 | 49.8 | Solder | 0.078 | 0.314 | 0.944 x 1.063 | 1.25 | 1.09 | .99 |
| 231790CX | PC-130F-18120 | 7 | 3 | 3-4.5 | 0.51 | 6260 | 8.1 | 35.6 | Solder | 0.078 | 0.377 | 0.803 x 0.984 | 2.09 | 1.89 | 1.69 |
| 231870CX | UE-260-2290 | 6 | 3 | 1.5-4.5 | 0.62 | 6400 | 12.9 | 47.1 | Solder | 0.078 | 0.314 | 0.944 x 1.063 | 1.25 | 1.09 | .99 |
| 231925CX | FE-260-2295 | 5 | 3 | 1.5-4.5 | 0.63 | 6850 | 14 | 53.9 | Solder | 0.078 | 0.314 | 0.937 x 1.063 | .99 | .89 | .85 |
| 232071CX | FC-280-2485 | 1 | 4.5 | 4.5-7.2 | 0.88 | 7820 | 26 | 52.7 | Solder | 0.078 | 0.472 | 0.944 x 1.200 | 1.75 | 1.59 | 1.45 |
| 232080CX | FC-280-2865 | 1 | 4.5 | 4.5-6 | 1.38 | 9970 | 30.4 | 50.1 | Solder | 0.078 | 0.472 | 0.944 x 1.200 | 1.75 | 1.59 | 1.45 |
| 231765CX | PC-130SF-15160 | 7 | 4.8 | 3-9 | 0.42 | 4960 | 16.6 | 42.6 | Solder | 0.078 | 0.377 | 0.803 x 0.984 | 2.09 | 1.89 | 1.69 |
| 231984CX | UC-260-14275 | 6 | 6 | 6-12 | 0.21 | 4150 | 13.1 | 45.8 | Solder | 0.078 | 0.314 | 0.944 x 1.063 | 1.49 | 1.35 | 1.19 |
| 231829CX | PC-280-16210 | 8 | 6 | 3-12 | 0.28 | 4260 | 18 | 47.6 | Solder | 0.078 | 0.433 | 0.944 x 1.200 | 2.45 | 2.19 | 1.99 |
| 231781CX | PC-130F-12240 | 7 | 6 | 3-9 | 0.25 | 6800 | 7 | 33.4 | Solder | 0.078 | 0.377 | 0.803 x 0.984 | 2.09 | 1.89 | 1.69 |
| 231992CX | UC-260-18160 | 6 | 6 | 3-9 | 0.57 | 7460 | 22.1 | 49.9 | Solder | 0.078 | 0.314 | 0.944 x 1.063 | 1.49 | 1.35 | 1.19 |
| 231811CX | PC-280-20125 | 8 | 6 | 3-9 | 0.57 | 7560 | 21.1 | 48.6 | Solder | 0.078 | 0.433 | 0.944 x 1.200 | 2.45 | 2.19 | 1.99 |
| 232063CX | FC-280-20120 | 1 | 6 | 4.5-9 | 0.60 | 7800 | 24.1 | 53.5 | Solder | 0.078 | 0.472 | 0.944 x 1.200 | 1.75 | 1.59 | 1.45 |
| 232143CX | FF-050S-11170 | 3 | 7 | 1.5-9 | 0.17 | 8500 | 7 | 51.3 | Solder | 0.059 | 0.433 | 0.610 x 1.059 | 2.49 | 2.25 | 1.99 |
| 232151CX | FF-050S-09250 | 3 | 8 | 5-11.5 | 0.11 | 6300 | 7 | 51.4 | Solder | 0.059 | 0.433 | 0.610 x 1.059 | 2.49 | 2.25 | 1.99 |
| 231802CX | PC-130F-10370 | 7 | 9 | 6-12 | 0.15 | 6410 | 8.5 | 43.9 | Solder | 0.078 | 0.377 | 0.803 x 0.984 | 2.09 | 1.89 | 1.69 |
| 231933CX | UC-280S-10450 | 9 | 12 | 12-24 | 0.11 | 2850 | 21.3 | 46.5 | Solder | 0.078 | 0.433 | 0.944 x 1.200 | 2.55 | 2.29 | 2.09 |
| 232012CX | MD5-12160 | 10 | 12 | 12-24 | 0.30 | 4000 | 34.3 | 39.1 | Solder | 0.091 | 0.622 | 1.082 x 1.279 | 2.25 | 1.99 | 1.79 |
| 231968CX | UC-260-09530 | 6 | 12 | 12-24 | 0.12 | 4030 | 12.5 | 36.7 | Solder | 0.078 | 0.314 | 0.944 x 1.063 | 1.49 | 1.35 | 1.19 |
| 231845CX | PC-280-10420 | 8 | 12 | 6-24 | 0.13 | 4270 | 14.5 | 43.6 | Solder | 0.078 | 0.433 | 0.944 x 1.200 | 2.45 | 2.19 | 1.99 |
| 231731CX | PC-130SF-09480 | 7 | 12 | 6-24 | 0.11 | 4800 | 12.3 | 49.6 | Solder | 0.078 | 0.377 | 0.803 x 0.984 | 2.09 | 1.89 | 1.69 |
| 231749CX | PC-130SF-09400 | 7 | 12 | 6-24 | 0.15 | 5130 | 14.3 | 42.5 | Solder | 0.078 | 0.377 | 0.803 x 0.984 | 2.09 | 1.89 | 1.69 |
| 231896CX | FE-260-08450 | 5 | 12 | 6-12 | 0.11 | 5560 | 10.3 | 46.6 | Solder | 0.078 | 0.314 | 0.937 x 1.063 | .99 | .89 | .85 |
| 231773CX | PC-130F-09490 | 7 | 12 | 6-18 | 0.51 | 6260 | 8.1 | 39.1 | Solder | 0.078 | 0.377 | 0.803 x 0.984 | 2.09 | 1.89 | 1.69 |
| 232160CX | FF-050S-08220 | 3 | 12 | 9-18 | 0.09 | 6270 | 5 | 31.5 | Solder | 0.059 | 0.433 | 0.610 x 1.059 | 2.49 | 2.25 | 1.99 |
| 231757CX | PC-130SF-10315 | 7 | 12 | 6-18 | 0.25 | 6350 | 20 | 44.6 | Solder | 0.078 | 0.377 | 0.803 x 0.984 | 2.09 | 1.89 | 1.69 |
| 232055CX | FC-280-12280 | 1 | 12 | 6-12 | 0.26 | 6840 | 21.4 | 48.6 | Solder | 0.078 | 0.472 | 0.944 x 1.200 | 1.75 | 1.59 | 1.45 |
| 231976CX | UC-260-12335 | 6 | 12 | 6-12 | 0.24 | 7050 | 19.5 | 50.0 | Solder | 0.078 | 0.314 | 0.944 x 1.063 | 1.49 | 1.35 | 1.19 |
| 231837CX | PC-280-15265 | 8 | 12 | 6-12 | 0.30 | 7230 | 25 | 52.5 | Solder | 0.078 | 0.433 | 0.944 x 1.200 | 2.45 | 2.19 | 1.99 |
| 232004CX | UC-280S-19160 | 9 | 12 | 6-12 | 0.57 | 9000 | 46.6 | 63.4 | Solder | 0.078 | 0.433 | 0.944 x 1.200 | 2.55 | 2.29 | 2.09 |
| 232021CX | MD5-1885 | 10 | 12 | 6-18 | 0.74 | 9820 | 53.5 | 60.7 | Solder | 0.091 | 0.622 | 1.082 x 1.279 | 2.25 | 1.99 | 1.79 |
| 231950CX | UC-280S-20145 | 9 | 12 | 6-12 | 0.75 | 10000 | 55 | 64.0 | Solder | 0.078 | 0.433 | 0.944 x 1.200 | 2.55 | 2.29 | 2.09 |
| 232039CX | MD5-2070 | 10 | 12 | 6-12 | 1.20 | 12150 | 62.2 | 54.1 | Solder | 0.091 | 0.622 | 1.082 x 1.279 | 2.25 | 1.99 | 1.79 |
| 232127CX | MD5-2554AS-AA | 2 | 12 | 6-12 | 1.70 | 17000 | 72.9 | 62.4 | Quick Connect | 0.091 | 0.512 | 1.083 x 1.279 | 3.59 | 3.19 | 2.89 |
| 232119CX | MD5-2450AS-AA | 2 | 12 | 6-12 | 2.00 | 17200 | 77.5 | 55.9 | Quick Connect | 0.091 | 0.512 | 1.083 x 1.279 | 3.59 | 3.19 | 2.89 |
| 232047CX | MD5-2445 | 10 | 12 | 6-12 | 2.05 | 19850 | 79.7 | 66.0 | Solder | 0.091 | 0.622 | 1.082 x 1.279 | 2.25 | 1.99 | 1.79 |
| 231941CX | UC-280S-12285 | 9 | 24 | 12-24 | 0.39 | 10300 | 54.4 | 62.4 | Solder | 0.078 | 0.433 | 0.944 x 1.200 | 2.55 | 2.29 | 2.09 |
| 232098CX | MD5-15120AS-AA | 2 | 24 | 12-24 | 0.70 | 15100 | 66.7 | 61.5 | Quick Connect | 0.091 | 0.512 | 1.083 x 1.279 | 3.59 | 3.19 | 2.89 |
| 232101CX | MD5-1980AS-AA | 2 | 24 | 12-24 | 1.43 | 22600 | 88.5 | 60.9 | Solder | 0.091 | 0.512 | 1.083 x 1.279 | 3.59 | 3.19 | 2.89 |

Mabuchi-Type

| | | | | | | | | | | | | | | | |
|----------|----------------------|----|-----|----------|---------|-----------|------|------|--------|-------|-------|---------------|--------|--------|--------|
| 238465CX | RF-310TA-11400 (CCW) | 11 | 2.5 | 1-6 | 0.06 | 2190 | 3.3 | — | Solder | 0.078 | 0.369 | 0.962 x 0.712 | \$5.35 | \$4.85 | \$4.35 |
| 238457CX | RF-300PA-11400 (CW) | 12 | 3 | 1-3 | 0.07 | 2400 | 4.3 | 56.4 | Wires | 0.078 | 0.415 | 0.960 x 0.504 | 4.35 | 3.89 | 3.49 |
| 238511CX | RF-500TB-12560 | 13 | 6 | 1.5-12 | 0.08 | 2180 | 11.6 | 50.6 | Solder | 0.078 | 0.385 | 1.259 x 0.767 | 4.49 | 4.09 | 3.65 |
| 238431CX | EG-530AD-6B (CCW) | 14 | 6 | 4.2-7.5 | 0.13 | 2400 | 8 | — | Solder | 0.078 | 0.307 | 1.377 x 0.984 | 4.49 | 4.09 | 3.65 |
| 238422CX | EG-530AD-6F (CW) | 14 | 6 | 4.2-7.5 | 0.13 | 2400 | 8 | — | Solder | 0.078 | 0.307 | 1.377 x 0.984 | 4.49 | 4.09 | 3.65 |
| 238449CX | EG-530AD-9B (CCW) | 14 | 9 | 6-11 | 0.09 | 2400 | 8 | — | Solder | 0.078 | 0.307 | 1.377 x 0.984 | 4.49 | 4.09 | 3.65 |
| 238490CX | EG-530YD-9B (CCW) | 14 | 9 | 6.3-11.7 | .13/.14 | 2000/4000 | 10 | — | Solder | 0.078 | 0.307 | 1.377 x 0.984 | 6.29 | 5.65 | 5.09 |
| 238502CX | EG-530KD-2B (CCW) | 14 | 12 | 8.4-15.6 | 0.08 | 1600 | 10 | — | Solder | 0.078 | 0.307 | 1.377 x 0.984 | 4.95 | 4.45 | 3.99 |
| 238473CX | RF-370CA-15370 | 15 | 12 | 3-12 | 0.07 | 1970 | 16 | 61.4 | Solder | 0.078 | 0.346 | 0.960 x 1.213 | 5.55 | 4.95 | 4.49 |
| 238414CX | EG-530AD-2B (CW) | 14 | 12 | 8.4-15 | 0.07 | 2400 | 60 | — | Solder | 0.078 | 0.307 | 1.377 x 0.953 | 4.49 | 4.09 | 3.65 |
| 238406CX | EG-530AD-2F (CCW) | 14 | 12 | 8.4-15 | 0.07 | 2400 | 60 | — | Solder | 0.078 | 0.307 | 1.377 x 0.953 | 4.49 | 4.09 | 3.65 |
| 238481CX | EG-530YD-2B (CCW) | 14 | 12 | 8.4-15 | .13/.14 | 2000/4000 | 10 | — | Solder | 0.078 | 0.322 | 1.303 x 0.997 | 6.29 | 6.29 | 6.29 |

GBM

| | | | | | | | | | | | | | | | |
|----------|----------|---|------|------|-------|-------|-----|---|---------------|-------|-------|---------------|--------|--------|--------|
| 237391CX | 29SYT003 | 4 | 13.5 | 13.5 | 13 | 18000 | 509 | — | Quick Connect | 0.125 | 1.003 | 1.141 x 2.283 | \$5.95 | \$5.35 | \$4.85 |
| 237382CX | 29SYT002 | 4 | 24 | 24 | <0.93 | 2680 | 178 | — | Wire | 0.100 | 0.334 | 0.787 x 1.89 | 5.95 | 5.35 | 4.85 |
| 237403CX | 40SYT002 | — | 26 | 26 | 1.5 | 300 | 815 | — | Quick Connect | 0.196 | 1.021 | 1.57 x 3.85 | 25.95 | 23.35 | 20.99 |
| 237374CX | 29SYT001 | 4 | 112 | 112 | <0.93 | 2680 | 178 | — | Wire | 0.100 | 0.334 | 1.15 x 1.89 | 5.95 | 5.35 | 4.85 |



MITSUMI

Quantity
SAVE

3-150VDC Motors

Mitsumi Motor

star motor

JOHNSON
ELECTRIC



154915CX/154923CX



211246CX



181411CX



267231CX



177498CX



162579CX



174692CX



181112CX



206949CX



181964CX



153656CX



267291CX

| Part Number | Product Number | Manufacturer | Nominal Voltage (VDC) | Voltage Range (VDC) | @ Maximum Efficiency | | | Efficiency | Terminal Type | Shaft Dia. | Shaft Length | Size (D" x L") | Pricing | | |
|-------------|---------------------------|----------------------------|-----------------------|---------------------|----------------------|-------------|---------------|------------|---------------|------------|--------------|----------------|---------|--------|--------|
| | | | | | Current (Amps) | Speed (RPM) | Torque (g-cm) | | | | | | 1 | 10 | 100 |
| 154915CX | ST-130-12240 ¹ | Star Motor | 3 | 1.5-3 | 0.170 | 3588 | 7.4 | 55 | 0.09"/solder | 0.08" | 0.37" | 0.79 x 1.13 | \$1.09 | \$.93 | \$.69 |
| 154923CX | ST-130-22770 ¹ | Star Motor | 3 | 1.5-3 | 1.150 | 12500 | 10.3 | 40 | 0.09"/solder | 0.08" | 0.37" | 0.79 x 1.13 | .99 | .89 | .79 |
| 211246CX | RC-260RA-2670 | Mabuchi Motor | 4.5 | 3-4.5 | 1.430 | 15290 | 21.8 | 53 | 0.11"/solder | 0.08" | 0.28" | 0.93 x 1.06 | 1.95 | 1.65 | 1.25 |
| 181411CX | HC685G-61810 | Johnson Electric | 5 | 3-14 | 0.470 | 10000 | 18.8 | — | 0.187"/solder | 0.13" | 0.54" | 1.40 x 1.98 | 2.95 | 2.55 | 1.89 |
| 267231CX | FRF-510-12620 | Telco | 6 | 3-12 | 0.030 | 2700 | 10.0 | — | Wire w/ conn. | 0.08" | 0.31" | 1.25 x 0.86 | .99 | .89 | .79 |
| 177498CX | RC280RA-2485 | Mabuchi Motor | 7.2 | 3-14 | 1.180 | 14260 | 33.3 | 57 | 11"/solder | 0.08" | 0.43" | 0.95 x 1.20 | 1.75 | 1.55 | 1.39 |
| 162579CX | TID20E | Operating Tech T&I | 12 | 9-14 | 0.025 | 2150 | — | — | 0.20"/solder | 0.12" | 0.48" | 1.48 x 1.42 | .77 | .70 | .64 |
| 174692CX | 21226-384221 | Johnson Electric | 12 | 9-14 | 0.015 | 3000 | — | — | 0.11"/solder | 0.08" | 0.69" | 0.97 x 1.19 | 2.49 | 2.15 | 1.59 |
| 181112CX | M25N-2 | Mitsumi | 12 | 5-15 | 0.018 | 3000 | 18.0 | — | 11"/solder | 0.08" | 0.26" | 0.97 x 1.30 | 1.99 | 1.69 | 1.29 |
| 206949CX | QJT360S14280 | Nichibo | 12 | 9-30 | 0.350 | 4930 | 44.5 | 52 | 0.11"/solder | 0.09" | 0.45" | 1.09 x 1.30 | 1.69 | 1.45 | 1.09 |
| 181964CX | NF203G12 | Johnson Electric | 12 | 9-14 | 0.030 | 5000 | — | — | 0.07"/solder | 0.08" | 0.57" | 0.95 x 1.20 | 1.55 | 1.40 | 1.26 |
| 153656CX | RS550PF | Mabuchi Motor ² | 12 | 6-15 | 1.400 | 6500 | 44.1 | — | 0.15"/solder | 0.13" | 0.66" | 1.45 x 2.25 | 3.29 | 2.99 | 2.69 |
| 267291CX | SUN-555A-LMRK | Telco | 24 | — | 0.150 | 4100 | 84 | — | Wire w/ conn. | 0.13" | 0.40" | 1.45 x 2.25 | 2.99 | 2.69 | 2.45 |

¹ 154915CX/154923CX: Use bushing P/N 162392CX, pg 234

² Manufacturer may vary



HSIANG NENG

- Solder-type terminal
- High torque construction
- Oil bearing design for long service life
- Insulation resistance: 10MΩ
- Dielectric strength: 300VDC

12 and 24VDC Reversible Gear Head Motors



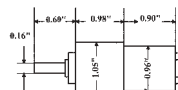
167038CX



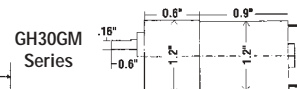
159417CX



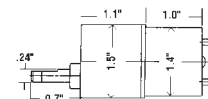
155011CX



HN27GD Series



GH30GM Series



GH35GM Series

HN27GD Series

| Part Number | Product Number | Rated Voltage (VDC) | Operating Range (VDC) | @ Maximum Efficiency | | | Gear Ratio | Gear Case Size Dia. x Length (in.) | Motor Size Dia. x Length (in.) | Shaft Size Dia. x Length (in.) | Pricing | | |
|-------------|----------------|---------------------|-----------------------|----------------------|-------------|---------------|------------|------------------------------------|--------------------------------|--------------------------------|---------|---------|---------|
| | | | | Current (mA) | Speed (RPM) | Torque (g-cm) | | | | | 1 | 10 | 50 |
| 167038CX | GH12-0953Y | 12 | 4.5 - 24 | 90 | 9 | 1200 | 188:1 | 1.0 x 0.9 | 1.1 x 1.0 | .16 x .60 | \$16.49 | \$14.85 | \$13.39 |
| 167046CX | GH12-1828Y | 12 | 4.5 - 24 | 195 | 31 | 1300 | 90:1 | 1.1 x 1.3 | 1.1 x 0.8 | .16 x .60 | 21.95 | 19.79 | 17.79 |

GH30GM Series

| | | | | | | | | | | | | | |
|----------|---------------|----|----------|-----|-----|------|-------|-----------|-----------|-----------|---------|---------|---------|
| 170641CX | GH12-1828Y-10 | 12 | 6.0 - 24 | 105 | 8 | 3500 | 332:1 | 1.2 x 1.2 | 1.2 x 0.9 | .16 x .70 | \$23.95 | \$21.59 | \$19.49 |
| 153437CX | GH12-1045Y | 12 | 3.0 - 12 | 90 | 7 | 800 | 200:1 | 0.9 x 1.0 | 1.1 x 0.6 | .16 x .70 | 18.95 | 17.09 | 15.35 |
| 159417CX | GH12-1921Y | 12 | 4.5 - 12 | 200 | 35 | 2000 | 132:1 | 1.2 x 1.2 | 1.2 x 0.9 | .16 x .70 | 21.95 | 19.79 | 17.79 |
| 162190CX | GH12-1324Y225 | 12 | 4.5 - 12 | 145 | 176 | 300 | 30:1 | 1.0 x 0.9 | 1.1 x 0.6 | .16 x .70 | 16.95 | 15.25 | 13.75 |

GH35GM Series

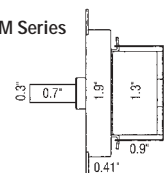
| | | | | | | | | | | | | | |
|----------|--------------|----|----------|-----|-----|------|--------|-----------|-----------|-----------|---------|---------|---------|
| 155011CX | GH12-1926 | 12 | 4.5 - 12 | 250 | 2 | 6000 | 3000:1 | 1.3 x 0.9 | 1.5 x 1.1 | .23 x .90 | \$21.95 | \$19.79 | \$17.79 |
| 155820CX | GH12-1830Y-P | 12 | 4.5 - 12 | 220 | 3 | 4500 | 1000:1 | 1.3 x 0.9 | 1.5 x 1.0 | .23 x .90 | 21.95 | 19.79 | 17.79 |
| 155838CX | GH12-1641T-L | 12 | 3.0 - 12 | 250 | 15 | 3000 | 270:1 | 1.3 x 0.9 | 1.5 x 0.8 | .23 x .90 | 23.95 | 21.59 | 19.45 |
| 152910CX | GH12-1926Y | 12 | 4.5 - 12 | 172 | 35 | 2370 | 100:1 | 1.3 x 1.0 | 1.5 x 0.7 | .24 x .90 | 21.95 | 19.75 | 17.75 |
| 151440CX | GH12-1632TI | 12 | 4.5 - 12 | 275 | 57 | 2200 | 100:1 | 1.3 x 0.9 | 1.5 x 0.7 | .23 x .90 | 21.95 | 18.55 | 16.69 |
| 155854CX | GH12-1641T-F | 12 | 3.0 - 12 | 250 | 71 | 1000 | 60:1 | 1.3 x 0.9 | 1.4 x 0.9 | .23 x .90 | 21.95 | 19.79 | 17.79 |
| 155862CX | GH12-1926Y-F | 12 | 4.5 - 12 | 300 | 70 | 1000 | 60:1 | 1.3 x 0.9 | 1.4 x 0.9 | .23 x .90 | 21.95 | 19.79 | 17.79 |
| 161373CX | GH12-1345T | 12 | 4.5 - 12 | 185 | 116 | 650 | 30:1 | 1.3 x 0.9 | 1.5 x 0.7 | .23 x .90 | 23.95 | 21.59 | 19.45 |
| 161381CX | GH12-1634T | 12 | 4.5 - 12 | 293 | 145 | 850 | 30:1 | 1.3 x 0.9 | 1.4 x 0.7 | .23 x .90 | 21.95 | 19.79 | 17.79 |
| 164785CX | GH12-1640Y | 12 | 4.5 - 24 | 120 | 220 | 180 | 10:1 | 1.3 x 0.9 | 1.4 x 0.7 | .23 x .90 | 23.95 | 21.59 | 19.45 |
| 176049CX | GH12-1640Y00 | 24 | 12 - 24 | 340 | 1.8 | 6000 | 3000:1 | 1.3 x 0.9 | 1.5 x 1.1 | .23 x .90 | 21.95 | 18.66 | 13.99 |
| 176031CX | GH24-1640Y06 | 24 | 12 - 24 | 340 | 50 | 2000 | 90:1 | 1.3 x 0.9 | 1.4 x 0.7 | .23 x .90 | 21.95 | 19.79 | 17.79 |
| 176022CX | GH24-1640Y19 | 24 | 12 - 24 | 340 | 148 | 1000 | 30:1 | 1.3 x 0.9 | 1.4 x 0.7 | .23 x .90 | 21.95 | 19.79 | 17.79 |

6 and 12VDC Reversible Gear Head Motors

32GM Series

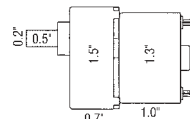
| Part Number | Product Number | Rated Voltage (VDC) | @ Maximum Efficiency | | | Gear Ratio | Gear Case Size Dia. x Height (in.) | Motor Size Dia. x Height (in.) | Shaft Size Dia. x Length (in.) | Pricing | | |
|-------------|----------------|---------------------|----------------------|-------------|---------------|------------|------------------------------------|--------------------------------|--------------------------------|---------|---------|---------|
| | | | Current (mA) | Speed (RPM) | Torque (g-cm) | | | | | 1 | 10 | 50 |
| 253403CX | 32-009 | 6 | 64 | 2.7 | 2500 | 450:1 | 1.9 x 0.41 | 1.3 x 0.90 | 0.3 x 0.7 | \$17.95 | \$16.15 | \$14.55 |
| 253391CX | 32-008 | 6 | 60 | 3 | 2000 | 400:1 | 1.9 x 0.41 | 1.3 x 0.90 | 0.3 x 0.7 | 17.95 | 16.15 | 14.55 |
| 253382CX | 32-007 | 6 | 57 | 3.2 | 1800 | 377:1 | 1.9 x 0.41 | 1.3 x 0.90 | 0.3 x 0.7 | 17.95 | 16.15 | 14.55 |
| 253374CX | 32-006 | 6 | 51 | 4 | 1680 | 300:1 | 1.9 x 0.41 | 1.3 x 0.90 | 0.3 x 0.7 | 17.95 | 16.15 | 14.55 |
| 253340CX | 32-005 | 6 | 48 | 5 | 1600 | 240:1 | 1.9 x 0.41 | 1.3 x 0.90 | 0.3 x 0.7 | 17.95 | 16.15 | 14.55 |
| 253323CX | 32-004 | 6 | 44 | 6 | 1500 | 200:1 | 1.9 x 0.41 | 1.3 x 0.90 | 0.3 x 0.7 | 17.95 | 16.15 | 14.55 |
| 253315CX | 32-003 | 6 | 40 | 6.3 | 1350 | 190:1 | 1.9 x 0.41 | 1.3 x 0.90 | 0.3 x 0.7 | 17.95 | 16.15 | 14.55 |
| 253307CX | 32-002 | 6 | 38 | 8 | 1200 | 150:1 | 1.9 x 0.41 | 1.3 x 0.90 | 0.3 x 0.7 | 17.95 | 16.15 | 14.55 |
| 253227CX | 32-001 | 6 | 35 | 24 | 450 | 50:1 | 1.9 x 0.41 | 1.3 x 0.90 | 0.3 x 0.7 | 17.95 | 16.15 | 14.55 |

32GM Series



253227CX

38GM Series



253446CX

38GM Series

| | | | | | | | | | | | | |
|----------|--------|----|------|-----|------|-------|-----------|-----------|-----------|---------|---------|---------|
| 253534CX | 38-010 | 12 | 97 | 24 | 7500 | 250:1 | 1.5 x 0.7 | 1.3 x 1.0 | 0.2 x 0.5 | \$18.95 | \$17.09 | \$15.35 |
| 253526CX | 38-009 | 12 | 93.5 | 36 | 5400 | 167:1 | 1.5 x 0.7 | 1.3 x 1.0 | 0.2 x 0.5 | 18.95 | 17.09 | 15.35 |
| 253518CX | 38-008 | 12 | 87.5 | 40 | 4800 | 150:1 | 1.5 x 0.7 | 1.3 x 1.0 | 0.2 x 0.5 | 18.95 | 17.09 | 15.35 |
| 253500CX | 38-007 | 12 | 82 | 60 | 3200 | 100:1 | 1.5 x 0.7 | 1.3 x 1.0 | 0.2 x 0.5 | 18.95 | 17.09 | 15.35 |
| 253497CX | 38-006 | 12 | 80 | 66 | 2100 | 90:1 | 1.5 x 0.7 | 1.3 x 1.0 | 0.2 x 0.5 | 18.95 | 17.09 | 15.35 |
| 253489CX | 38-005 | 12 | 76 | 110 | 1300 | 56:1 | 1.5 x 0.7 | 1.3 x 1.0 | 0.2 x 0.5 | 18.95 | 17.09 | 15.35 |
| 253471CX | 38-004 | 12 | 74 | 120 | 1100 | 50:1 | 1.5 x 0.7 | 1.3 x 1.0 | 0.2 x 0.5 | 18.95 | 17.09 | 15.35 |
| 253462CX | 38-003 | 12 | 68 | 180 | 800 | 33:1 | 1.5 x 0.7 | 1.3 x 1.0 | 0.2 x 0.5 | 18.95 | 17.09 | 15.35 |
| 253454CX | 38-002 | 12 | 65 | 200 | 700 | 30:1 | 1.5 x 0.7 | 1.3 x 1.0 | 0.2 x 0.5 | 18.95 | 17.09 | 15.35 |
| 253446CX | 38-001 | 12 | 61.8 | 600 | 350 | 10:1 | 1.5 x 0.7 | 1.3 x 1.0 | 0.2 x 0.5 | 18.95 | 17.09 | 15.35 |

1.3-3VDC Vibrating Motors

Quantity
SAVE

- Typical applications: cellular phones, pagers and toys



Fig. 1

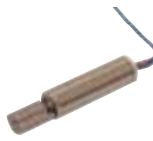


Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7

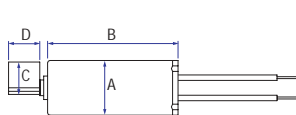


Fig. 3

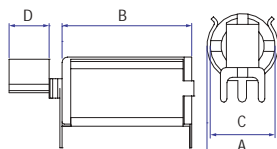


Fig. 5

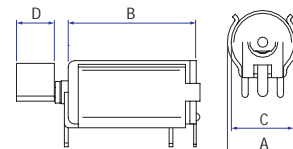


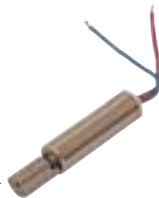
Fig. 6

| Part No. | Mfr. Cross Ref. No. | Fig. | Operating Voltage (VDC @ mA) | Operating Range (VDC) | Rated RPM @ VDC | Lead Length (in.) | Motor Size (A x B) Dia." x L" | Shaft Size (C x D) Dia." x L" | Pricing | | |
|----------|---------------------|------|------------------------------|-----------------------|-----------------|-------------------|-------------------------------|-------------------------------|---------|--------|--------|
| | | | | | | | | | 1 | 10 | 100 |
| 175062CX | OTL-7AL | 1 | 1.3 @ 62 | 0.70 - 1.60 | 7000 @ 1.3 | 0.7 | 0.28 x 0.67 | 0.10 x 0.18 | \$5.49 | \$4.94 | \$4.45 |
| 175396CX | OTL-4AL | 2* | 1.3 @ 65 | 0.70 - 1.60 | 8500 @ 1.3 | 0.8 | 0.16 x 0.55 | 0.15 x 0.23 | 6.49 | 5.85 | 5.19 |
| 256356CX | 72K642 | 3 | 1.3 @ 70 | 1.00 - 1.60 | 7500 @ 1.3 | 4.7 | 0.28 x 0.66 | 0.18 x 0.22 | 4.65 | 4.19 | 3.75 |
| 256372CX | 72K631 | 3 | 1.3 @ 70 | 0.80 - 1.60 | 7500 @ 1.3 | 1.1 | 0.28 x 0.66 | 0.12 x 0.16 | 4.65 | 4.19 | 3.75 |
| 190078CX | 6CD-1201WL-00 | 4* | 1.3 @ 80 | N/A | 7500 @ 1.3 | 1.1 | 0.24 x 0.47 | 0.10 x 0.22 | 6.55 | 5.57 | 4.18 |
| 256305CX | 62K003 | 3 | 1.3 @ 80 | 0.85 - 1.60 | 8500 @ 1.3 | 1.0 | 0.23 x 0.39 | 0.10 x 0.10 | 3.29 | 2.99 | 2.69 |
| 256321CX | 62K211 | 5 | 1.3 @ 80 | 0.80 - 1.60 | 8500 @ 1.3 | PC Term | 0.27 x 0.48 | 0.11 x 0.11 | 3.29 | 2.99 | 2.69 |
| 256145CX | 42K036 | 6 | 1.3 @ 80 | 0.85 - 1.60 | 11000 @ 1.3 | PC Term | 0.17 x 0.43 | 0.07 x 0.16 | 5.95 | 5.35 | 4.85 |
| 256268CX | 52K019 | 6 | 1.3 @ 85 | 0.80 - 1.60 | 10000 @ 1.3 | PC Term | 0.20 x 0.40 | 0.10 x 0.07 | 5.29 | 4.79 | 4.29 |
| 256049CX | 42K041 | 3 | 1.3 @ 85 | 0.85 - 1.60 | 11000 @ 1.3 | 1.0 | 0.16 x 0.43 | 0.07 x 0.17 | 5.95 | 5.35 | 4.85 |
| 256241CX | 52K011 | 3 | 1.3 @ 85 | 0.80 - 1.60 | 11000 @ 1.3 | 1.0 | 0.20 x 0.39 | 0.10 x 0.12 | 5.29 | 4.79 | 4.29 |
| 185228CX | FM31E | 7 | 3.0 @ 45 | 2.50 - 3.80 | 4500 @ 3.0 | Solder pads | 0.55 x 0.13 | N/A | 3.85 | 3.27 | 2.45 |
| 256364CX | 72K692 | 3 | 3.0 @ 60 | 2.40 - 3.00 | 6500 @ 3.0 | 4.7 | 0.28 x 0.66 | 0.18 x 0.22 | 4.65 | 4.19 | 3.75 |
| 256381CX | 72K681 | 3 | 3.0 @ 60 | 2.40 - 3.60 | 7500 @ 3.0 | 1.1 | 0.28 x 0.66 | 0.12 x 0.16 | 4.65 | 4.19 | 3.75 |
| 256313CX | 62K053 | 3 | 3.0 @ 75 | 1.60 - 3.60 | 8500 @ 3.0 | 1.0 | 0.23 x 0.39 | 0.10 x 0.10 | 3.29 | 2.99 | 2.69 |
| 256330CX | 62K261 | 5 | 3.0 @ 75 | 2.40 - 3.00 | 8500 @ 3.0 | PC Term | 0.27 x 0.48 | 0.11 x 0.11 | 3.29 | 2.99 | 2.69 |
| 256250CX | 52K061 | 3 | 3.0 @ 75 | 2.40 - 3.00 | 10000 @ 3.0 | 1.0 | 0.20 x 0.39 | 0.10 x 0.12 | 5.29 | 4.79 | 4.29 |
| 256276CX | 52K069 | 6 | 3.0 @ 75 | 2.40 - 3.00 | 10000 @ 3.0 | PC Term | 0.20 x 0.40 | 0.10 x 0.07 | 5.29 | 4.79 | 4.29 |
| 256090CX | 42K091 | 3 | 3.0 @ 80 | 2.40 - 3.60 | 11000 @ 3.0 | 1.0 | 0.16 x 0.43 | 0.07 x 0.17 | 5.95 | 5.35 | 4.85 |
| 256153CX | 42K086 | 6 | 3.0 @ 70 | 1.30 - 3.60 | 12000 @ 3.0 | PC Term | 0.17 x 0.43 | 0.07 x 0.16 | 5.95 | 5.35 | 4.85 |

*More details on page 96

1.3VDC 8,500 RPM Vibrating Motor

- Typical applications: cellular phones, pagers, and toys
- Rated RPM: 8,500 @ 1.3VDC
- Direction of rotation: clockwise
- Operating voltage: 1.3V @ 65mA (typical)
- Lead length: 0.75"
- Size: (motor) 0.16"Dia. x 0.55"L (shaft) 0.15"Dia. x 0.23"L



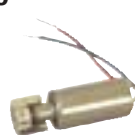
| Part No. | Description | 1 | 10 | 100 |
|----------|-----------------------|--------|--------|--------|
| 175396CX | Vibrating motor | \$6.49 | \$5.85 | \$5.19 |

Namiki

1.3VDC 7,500 RPM Vibrating Motor

- Typical applications: cellular phones, pagers and toys
- Rated RPM: 7,500 @ 1.3VDC
- Clock-wise rotation
- 1.1" lead wires
- Operating voltage: 1.3VDC @ 80mA
- Size: (motor) 0.47"L x 0.24"Dia. (shaft) 0.22"L x 0.10"Dia.

Quantity
SAVE



| Part No. | Description | 1 | 10 | 100 |
|----------|-----------------------|--------|--------|--------|
| 190078CX | Vibrating motor | \$6.55 | \$5.57 | \$4.18 |

120VAC Gear Motor

6.0 RPM - 2.9 Watt

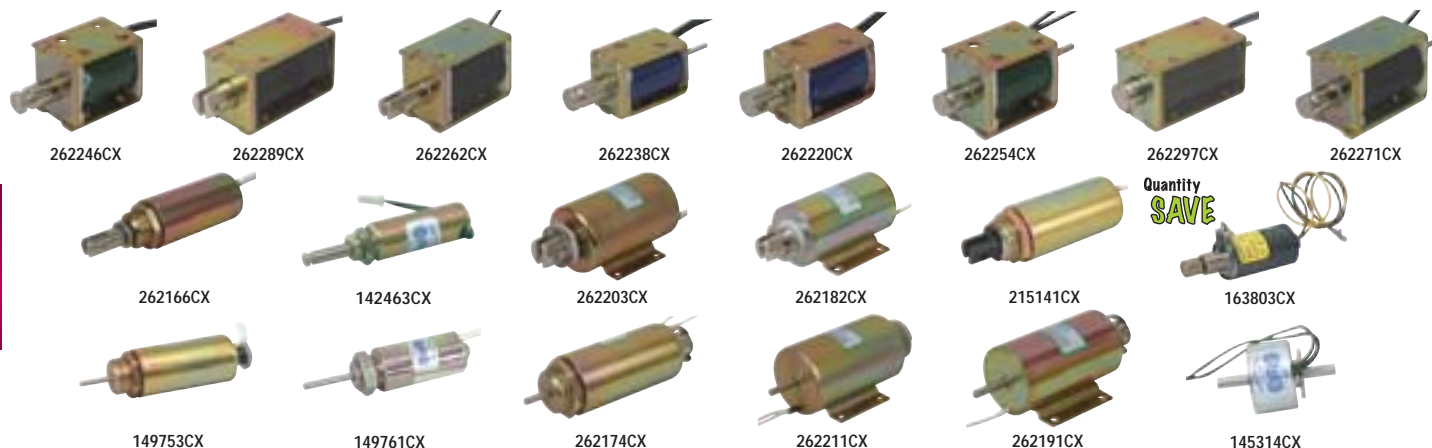
- Operating Voltage: 120VAC @ 60Hz
- Torque: >3.6 kg-cm
- Connector: 12" wires
- Screw down tabs for mounting (2.3" diagonal mounting hole space)
- Shaft diameter: 0.27" • Shaft length: 0.65"
- Overall size: 2.0" Dia. x 1.0" Thick
- Typical applications: air conditioner turnleaf motor, microwave turnplate motor



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 100 |
|----------|---------------------|---------|---------|---------|
| 213487CX | 50TYZ | \$14.95 | \$13.46 | \$12.11 |

Solenoids

12 and 24VDC Continuous Push, Pull and Push/Pull Solenoids



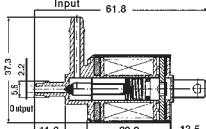
Quantity
SAVE

| Part No. | Mfr. Cross Reference No. | Type | Voltage (VDC) | Coil Res. (±10%) (Ohms) | Power Consump. (W) | Holding Force (lbs. @ 20°C) | Stroke | Size L x Dia. (in.) [†] | Shaft Dia. (in.) | Wt. (lbs.) | Pricing | | |
|----------|--------------------------|-------------------|---------------|-------------------------|--------------------|-----------------------------|--------|----------------------------------|------------------|------------|---------|--------|--------|
| | | | | | | | | | | | 1 | 10 | 100 |
| 262246CX | SMO-0520L12STD | Open frame-pull | 12 | 90 | 1.6 | 0.16 | 0.24 | 0.8 x 0.6 x 0.5 | 0.200 | 0.04 | \$5.19 | \$4.65 | \$4.19 |
| 262289CX | SMO-1253L12AA | Open frame-pull | 12 | 26 | 6.0 | 0.90 | 0.24 | 2.0 x 1.2 x 1.1 | 0.470 | 0.50 | 11.89 | 10.69 | 9.65 |
| 262262CX | SMO-0837L12STD | Open frame-pull | 12 | 36 | 4.0 | 1.10 | 0.24 | 1.5 x 1.0 x 0.8 | 0.310 | 0.21 | 7.29 | 6.56 | 5.90 |
| 262238CX | SMO-0415S12AA | Open frame-push | 12 | 180 | 0.8 | 0.01 | 0.12 | 0.6 x 0.4 x 0.3 | 0.040 | 0.01 | 5.95 | 5.35 | 4.79 |
| 262220CX | SMO-0415L12AA | Open frame-push | 12 | 180 | 0.8 | 0.01 | 0.12 | 0.6 x 0.4 x 0.3 | 0.160 | 0.01 | 4.79 | 4.29 | 3.89 |
| 262254CX | SMO-0520S12STD | Open frame-push | 12 | 90 | 1.6 | 0.16 | 0.24 | 0.8 x 0.6 x 0.5 | 0.06/0.20* | 0.04 | 6.39 | 5.75 | 5.15 |
| 262297CX | SMO-1253S12AA | Open frame-push | 12 | 26 | 6.0 | 0.90 | 0.24 | 2.0 x 1.2 x 1.1 | 0.10/0.47* | 0.50 | 13.09 | 11.79 | 10.59 |
| 262271CX | SMO-0837S12STD | Open frame-push | 12 | 36 | 4.0 | 1.10 | 0.24 | 1.5 x 1.0 x 0.8 | 0.08/0.31* | 0.21 | 8.39 | 7.59 | 6.85 |
| 262166CX | SMT-1325L12STD | Tubular-pull | 12 | 36 | 4.0 | 0.11 | 0.47 | 1.0 x 0.5 | 0.200 | 0.05 | 9.95 | 8.95 | 8.15 |
| 142463CX | SMT-1130L12A | Tubular-pull | 12 | 36 | 4.0 | 0.63 | 0.40 | 1.6 x 0.4 | 0.150 | 0.04 | 6.95 | 6.26 | 5.63 |
| 262203CX | SMT-3864L24STD | Tubular-pull | 24 | 34 | 17.0 | 1.32 | 1.18 | 2.5 x 1.5 | 0.620 | 1.10 | 29.95 | 26.95 | 24.29 |
| 262182CX | SMT-3257L24STD | Tubular-pull | 24 | 44 | 13.0 | 3.30 | 0.70 | 2.3 x 1.3 | 0.500 | 0.65 | 19.59 | 17.69 | 15.89 |
| 215141CX | SMT-2251L24AA | Tubular-pull | 24 | 60 | 10.0 | 4.00 | 1.00 | 3.0 x 1.0 | 0.440 | 0.40 | 10.95 | 9.86 | 8.87 |
| 163803CX | A420-067074-01 | Tubular-push | 12 | 43 | 3.4 | 0.75 | 0.17 | 2.0 x 0.6 | 0.156 | 0.10 | 9.95 | 7.65 | 5.75 |
| 149753CX | SMT-1325S12A | Tubular-push | 12 | 36 | 4.0 | 0.75 | 0.47 | 1.9 x 0.5 | 0.063 | 0.05 | 9.95 | 8.95 | 7.95 |
| 149761CX | SMT-1632S12A | Tubular-push | 12 | 21 | 7.0 | 1.50 | 0.24 | 2.5 x 0.6 | 0.098 | 0.10 | 10.95 | 9.86 | 8.87 |
| 262174CX | SMT-2551S24STD | Tubular-push | 24 | 58 | 10.0 | 1.32 | 0.70 | 2.0 x 1.0 | 0.120 | 0.40 | 15.95 | 14.39 | 12.99 |
| 262211CX | SMT-3864S24STD | Tubular-push | 24 | 34 | 17.0 | 1.32 | 1.18 | 2.5 x 1.5 | 0.160 | 1.10 | 31.39 | 28.19 | 25.39 |
| 262191CX | SMT-3257S24STD | Tubular-push | 24 | 44 | 13.0 | 6.80 | 0.70 | 2.3 x 1.3 | 0.160 | 0.65 | 19.95 | 17.95 | 16.19 |
| 145314CX | SMT1913S12A | Tubular-push/pull | 12 | 89 | 2.0 | 1.12 | 0.16 | 1.2 x 0.7 | 0.110 | 0.05 | 9.95 | 8.96 | 8.06 |

[†]Open frame type dimensions: L" x W" x H"; *Dual shaft

12VDC Solenoid Valve

- Operating voltage: 12VDC
- Operational temperature: -29°C to 85°C
- Current: 350mA
- Air leakage: 1c.c./min. max. 4psi
- 0.250" quick disconnect terminals
- Size: 1.2"L x 0.92"Dia • Weight: 0.1 lbs.



| Part No. | Description | 1 | 10 | 100 |
|----------|----------------------|--------|--------|--------|
| 169834CX | Solenoid valve | \$6.95 | \$6.25 | \$5.59 |

See page 240 for our selection of Motor Kits.



Miniature Toggle Switches

• Mounting hole diameter: 1/4"

Includes: Mounting hardware

Quantity
SAVE

Fig. 1



Fig. 2



Fig. 3

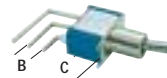


Fig. 4



Fig. 5



Fig. 6

| Part No. | Mfr. Cross Ref. No. | Fig. | Pins | Type () Momentary | Dimensions L" x W" x D" | Lead Spacing | | | Contact Rating (A @ VAC) | Lead Type | Lever Type | Pricing | | | | |
|----------|---------------------|------|------|-----------------------|----------------------------|--------------|------|-----|-----------------------------|----------------|------------|---------|--------|-------|-------|-------|
| | | | | | | A" | B" | C" | | | | 1 | 10 | 100 | 250 | 1000 |
| 76523CX | JMT113 | 1 | 2 | SPST on-off | .52 x .32 x .38 | — | .185 | — | 6 @ 125 & 3 @ 250 | Solder lugs | Round | \$1.15 | \$1.03 | \$.93 | \$.75 | \$.65 |
| 21936CX | JMT123 | 3 | 3 | SPDT on-on | .52 x .32 x .38 | — | .185 | — | 5 @ 125 & 2 @ 250 | Solder lugs | Round | 1.15 | 1.03 | .93 | .75 | .65 |
| 21910CX | JMT121 | 3 | 3 | SPDT on-off-on | .52 x .32 x .38 | — | .185 | — | 5 @ 125 & 2 @ 250 | Solder lugs | Round | 1.35 | 1.25 | 1.09 | .95 | .85 |
| 22832CX | LFH123 | 3 | 3 | SPDT on-on | .52 x .28 x .36 | — | .185 | — | 5 @ 125 & 2 @ 250 | Solder lugs | Flat | 1.15 | 1.05 | .95 | .85 | .75 |
| 75854CX | SWM132 | 3 | 3 | SPDT on-on | .52 x .32 x .38 | — | .185 | — | 6 @ 125 & 3 @ 250 | Solder lugs | Round | 1.29 | 1.16 | 1.04 | .94 | .69 |
| 75889CX | SWM129 | 3 | 3 | SPDT (on)-off-(on) | .52 x .32 x .38 | — | .185 | — | 6 @ 125 & 3 @ 250 | Solder lugs | Round | 1.99 | 1.85 | 1.55 | 1.09 | .95 |
| 26331CX | MPC123 | 3 | 3 | SPDT on-on | .52 x .32 x .37 | — | .185 | — | 6 @ 125 & 3 @ 250 | PC | Round | 1.39 | 1.25 | 1.12 | .95 | .78 |
| 26315CX | MPC121 | 3 | 3 | SPDT on-off-on | .52 x .32 x .37 | — | .185 | — | 5 @ 125 & 2 @ 250 | PC | Round | 1.29 | 1.19 | .99 | .79 | .59 |
| 71597CX | SWM148 | 4 | 3 | SPDT on-on | .52 x .32 x .38 | — | .185 | .20 | 5 @ 125 & 2 @ 250 | PC right angle | Round | 1.19 | 1.09 | .91 | .73 | .55 |
| 75871CX | SWM145 | 5 | 3 | SPDT on-on | .52 x .32 x .38 | — | .185 | .20 | 6 @ 125 & 3 @ 250 | PC right angle | Round | 1.49 | 1.35 | 1.09 | .86 | .79 |
| 22841CX | LFH221 | 2 | 6 | DPDT on-off-on | .52 x .52 x .38 | .20 | .185 | — | 3 @ 125 & 1 @ 250 | Solder lugs | Flat | 1.45 | 1.35 | 1.19 | 1.09 | .95 |
| 21979CX | JMT223 | 2 | 6 | DPDT on-on | .52 x .52 x .38 | .20 | .185 | — | 5 @ 125 & 2 @ 250 | Solder lugs | Round | 1.49 | 1.29 | 1.15 | .99 | .59 |
| 22859CX | LFH223 | 2 | 6 | DPDT on-on | .52 x .52 x .38 | .20 | .185 | — | 5 @ 125 & 2 @ 250 | Solder lugs | Flat | 1.29 | 1.19 | 1.05 | .95 | .85 |
| 105814CX | SWA208 | 2 | 6 | DPDT on-(on) | .52 x .52 x .38 | .20 | .185 | — | 5 @ 125 & 2 @ 250 | Solder lugs | Round | 1.75 | 1.58 | 1.42 | 1.28 | .99 |
| 75900CX | SWM133 | 2 | 6 | DPDT on-on | .52 x .52 x .38 | .20 | .185 | — | 6 @ 125 & 3 @ 250 | Solder lugs | Round | 1.49 | 1.35 | 1.25 | .99 | .85 |
| 21952CX | JMT221 | 2 | 6 | DPDT on-off-on | .52 x .52 x .38 | .20 | .185 | — | 6 @ 125 & 3 @ 250 | Solder lugs | Round | 1.29 | 1.16 | 1.04 | .89 | .75 |
| 75951CX | SWM130 | 2 | 6 | DPDT (on)-off-(on) | .52 x .52 x .38 | .20 | .185 | — | 6 @ 125 & 3 @ 250 | Solder lugs | Round | 1.49 | 1.35 | 1.25 | .99 | .89 |
| 26366CX | MPC221 | 2 | 6 | DPDT on-on | .52 x .52 x .38 | .20 | .185 | — | 5 @ 125 & 2 @ 250 | PC | Round | 1.49 | 1.35 | 1.25 | .99 | .89 |
| 26358CX | MPC223 | 2 | 6 | DPDT on-off-on | .52 x .52 x .38 | .20 | .185 | — | 5 @ 125 & 2 @ 250 | PC | Round | 1.29 | 1.16 | 1.04 | .89 | .75 |
| 202964CX | WI24 | 6 | 6 | DPDT on-off-(on) | .50 x .50 x .46 | .15 | .15 | .20 | 6 @ 125 & 3 @ 250 | PC right angle | Round | .99 | .89 | .75 | .59 | .45 |

Subminiature Toggle Switches

• Mounting hole diameter: 7/32" • Pre-tinned leads • Metal construction

Includes: Mounting hardware

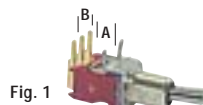


Fig. 1

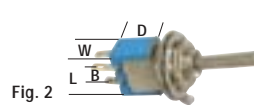


Fig. 2

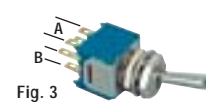


Fig. 3

| Part No. | Mfr. Cross Ref. No. | Fig. | Pins | Type | Dimensions L" x W" x D" | Lead Spacing | | Contact Rating | Lead Type | Lever Type | Pricing | | | | |
|----------|---------------------|------|------|----------------|----------------------------|--------------|-----|----------------|----------------|------------|---------|--------|--------|--------|--------|
| | | | | | | A" | B" | | | | 1 | 10 | 100 | 250 | 1000 |
| 106067CX | SWP124 | 1 | 3 | SPDT on-on | .25 x .33 x .40 | .20 | .10 | 30mA @ 5VDC | PC right angle | Round | \$1.99 | \$1.83 | \$1.59 | \$1.44 | \$1.32 |
| 72160CX | SW1501 | 2 | 2 | SPST on-off | .33 x .21 x .33 | .10 | — | 1.5A @ 250VAC | Solder lugs | Round | 1.29 | 1.24 | 1.14 | .98 | .79 |
| 75969CX | SWM136 | 2 | 3 | SPDT on-on | .33 x .21 x .33 | .10 | — | 3A @ 125VAC | Solder lugs | Round | 1.55 | 1.44 | 1.21 | .86 | .63 |
| 72557CX | SW1502 | 2 | 3 | SPDT on-off-on | .33 x .21 x .33 | .10 | — | 1.5A @ 250VAC | Solder lugs | Round | 1.35 | 1.25 | 1.05 | .85 | .60 |
| 138907CX | SW1503 | 3 | 6 | DPDT on-off-on | .36 x .37 x .33 | .17 | .10 | 3A @ 120VAC | Solder lugs | Round | 1.29 | 1.05 | .85 | .65 | .55 |
| 75977CX | SWM137 | 3 | 6 | DPDT on-on | .33 x .37 x .33 | .17 | .10 | 1.5A @ 250VAC | Solder lugs | Round | 1.29 | 1.05 | .85 | .65 | .55 |

Full-Size Toggle Switches

• Panel mount • Mounting hole diameter: 1/2"

• Full-size round lever • Medium duty

• Keyed plate indicates switch position

Includes: Mounting hardware and on/off plate

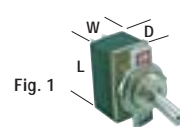
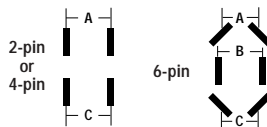
Quantity
SAVE

Fig. 1



Fig. 2

| Part No. | Mfr. Cross Ref. No. | Fig. | Pins | Type | Dimensions L" x W" x D" | Lead Spacing | | | Contact Rating (A @ VAC) | Lead Type | Lever Type | Pricing | | | | |
|----------|---------------------|------|------|-------------|----------------------------|--------------|-----|-----|-----------------------------|--------------|------------|---------|--------|--------|-------|-------|
| | | | | | | A" | B" | C" | | | | 1 | 10 | 100 | 250 | 1000 |
| 76241CX | SWM128 | 1 | 2 | SPST on-off | 1.00 x .56 x .52 | .23 | — | — | 4 @ 125 & 2 @ 250 | Solder lugs | Round | \$1.49 | \$1.29 | \$1.19 | \$.99 | \$.89 |
| 158060CX | JKN32 | 1 | 4 | DPST on-off | 1.00 x .56 x .52 | .23 | — | .23 | 4 @ 125 & 2 @ 250 | Solder lugs | Round | 1.15 | 1.05 | .95 | .85 | .75 |
| 76259CX | SWM126 | 1 | 6 | DPDT on-on | 1.12 x .77 x .60 | .30 | .60 | .40 | 5 @ 125 & 3 @ 250 | Solder lugs | Round | 1.75 | 1.58 | 1.34 | 1.07 | .80 |
| 158078CX | JKN3CC | 1 | 6 | DPDT on-on | 1.19 x .76 x .73 | .44 | .59 | .44 | 10 @ 125 & 6 @ 250 | Screw lugs | Round | 1.75 | 1.59 | 1.29 | .99 | .85 |
| 76232CX | SWM125 | 2 | 2 | SPST on-off | 1.00 x .53 x .51 | — | — | — | 6 @ 125 & 3 @ 250 | 6" lead wire | Round | 1.75 | 1.59 | 1.45 | 1.29 | 1.15 |

Slide Switches

- Two mounting flanges
- Top actuation except P/N 204142CX
- Nylon actuator
- Phenolic insulated



SALE

New Lower Prices

Quantity
SAVE

109170CX



202770CX



202981CX



203001CX



204142CX



161816CX



202972CX



202930CX

* Prepackaged: order in increments of 10, 100 or 250

| Part No. | Pins | Type | Description | Housing Material # | Dimensions | | | Lead Spacing | | Contact Rating | Lead Length | Actuator Height | Pricing | | | |
|----------|------|----------------|----------------------|--------------------|------------|-----|-----|--------------|-----|----------------|-------------|-----------------|---------|-------|-------|-------|
| | | | | | L" | W" | D" | A" | B" | | | | 1 | 10 | 100 | 250 |
| 109170CX | 3 | SPDT on-on | PC mount | Plastic | .22 | .45 | .23 | — | .12 | 0.5A @ 50VDC | .17" | .15" | \$.31 | \$.26 | \$.23 | \$.19 |
| 202770CX | 6 | SPDT on-on | PC mount | Plastic | .71 | .36 | .38 | .19 | .20 | 0.1A @ 30VDC | .17" | .32" | * | .095 | .087 | .079 |
| 202981CX | 4 | SP3T on-on-on | PC mount right angle | Metal | .61 | .24 | .18 | — | .10 | 0.3A @ 125VAC | .26" | .15" | * | .11 | .099 | .09 |
| 203001CX | 3 | SPDT on-off-on | PC mount right angle | Metal | .36 | .20 | .39 | — | .11 | 0.1A @ 28VDC | .18" | .10" | .29 | .25 | .20 | .15 |
| 204142CX | 3 | SPDT on-on* | PC mount | Plastic | .77 | .40 | .37 | — | .19 | 2.0A @ 28VDC | .19" | .17" | .39 | .37 | .29 | .22 |
| 161816CX | 6 | DPDT on-on† | PC mount | Plastic | .38 | .14 | .13 | .13 | .11 | 0.1A @ 20VDC | .11" | .08" | .59 | .49 | .39 | .29 |
| 202972CX | 6 | DPDT on-on | PC mount | Plastic | .77 | .43 | .29 | .24 | .18 | 1.0A @ 24VDC | .21" | .51" | .17 | .16 | .14 | .13 |
| 202930CX | 6 | DPDT on-on | PC mount | Plastic | .76 | .44 | .29 | .22 | .18 | 4A @ 28VDC | .23" | .40" | * | .082 | .074 | .067 |

* Side actuated † Plastic – flanges # Plastic: 6/6 nylon; metal: steel zinc plated

Pushbutton Switches

• Contact rating: 3A @ 125VAC • 2-pin • Lead type: solder terminal
164566CX / 164638CX: Contact rating: .5A @ 125VAC **164582CX / 164671CX:** Contact rating: 1A @ 125VAC
106112CX: Contact rating: 3A @ 110VAC

SALE

**Quantity
SAVE**

**New Lower
Prices**

**Mountain
switch**

Miniature Soft Touch Switches

| Part No. | Product No. | Fig. | Type () Momentary | Dimensions | Lead Spacing | Thread Diameter | Button Color | Pricing | | | |
|----------|-------------|------|-----------------------|------------------|-----------------|--------------------|-----------------|---------|--------|--------|--------|
| | | | | | | | | 1 | 10 | 100 | 1000 |
| 164494CX | DS450R | 1 | SPST off-on | 1.2"L x .59"Dia. | .175" | .387" | Red | \$1.84 | \$1.77 | \$1.70 | \$1.63 |
| 164486CX | DS463R | 1 | SPST off-(on) | 1.2"L x .59"Dia. | .175" | .387" | Red | 1.66 | 1.60 | 1.54 | 1.48 |
| 164523CX | DS466R | 2 | SPST off-(on) | 1.2"L x .60"Sq. | .160" | .383" | Red | 1.69 | 1.62 | 1.56 | 1.50 |
| 196921CX | 196921I | 2 | SPST off-on | 1.6"L x 1.6"Sq. | .189" | .450" | Red | 1.69 | 1.49 | 1.22 | .91 |
| 164558CX | DS471R | 3 | SPST off-(on) | 1.2"L x .75"Sq. | .160" | .387" | Red | 1.69 | 1.62 | 1.56 | 1.50 |



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8

Standard Touch Switches

| Part No. | Product No. | Fig. | Type () Momentary | Dimensions | Lead Spacing | Thread Diameter | Button Color | Pricing | | | |
|----------|-------------|------|-----------------------|------------------|-----------------|--------------------|-----------------|---------|--------|--------|--------|
| | | | | | | | | 1 | 10 | 100 | 1000 |
| 164566CX | MS402R | 4 | SPST off-(on) | .73"L x .22"Dia. | .078" | .190" | Red | \$1.25 | \$1.18 | \$1.12 | \$1.06 |
| 164582CX | DS016B | 5 | SPST off-(on) | .88"L x .46"Dia. | .220" | .354" | Black | 1.49 | 1.39 | 1.25 | 1.15 |
| 164638CX | MS3120R | 6 | SPST off-(on) | 1.1"L x .31"Dia. | .175" | .268" | Red | 1.32 | 1.19 | 1.07 | .96 |
| 164671CX | NS801MOB | 7 | SPST off-(on) | 1.1"L x .59"Dia. | .213" | .468" | Black | 2.19 | 1.89 | 1.79 | 1.65 |
| 106112CX | DS412R* | 8 | SPST off-(on) | .63"L x .66"Dia. | .275" | .750" | Red | 1.19 | .99 | .89 | .86 |

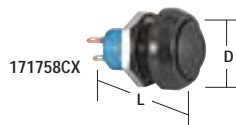
* Solder lugs



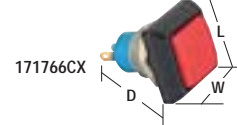
Pushbutton Switches

IP and AV Series Pushbutton Switches

- Panel mount
- 171758CX / 171766CX: IP Series**
 - Initial contact resistance: 50mΩ max.
 - Insulation resistance: 1GΩ min. @ 500VDC
- Mounting hole: 1/2"Dia.
- Dielectric strength: 1500Vrms min.
- Mechanical life: 1,000,000 cycles min.
- 171774CX: AV Series**
 - Initial contact resistance: 10mΩ max.
 - Insulation resistance: 1000MΩ min.
- Mounting hole: 3/4"Dia.
- Dielectric strength: 1000Vrms min.



171758CX



171766CX



171774CX

| Part No. | Product No. | Pins | Type () Momentary | Dimensions | | | Lead Spacing | Contact Rating | Terminal Type | Pricing | | | |
|----------|--------------|------|-----------------------|------------|-------|-------|-----------------|-------------------|------------------|---------|--------|--------|--------|
| | | | | L | W | D | | | | 1 | 10 | 100 | 250 |
| 171758CX | IPR3SAD2 | 2 | SPST off-(on) | 0.82" | — | 0.46" | 0.19" | 0.2A @ 250VAC | Solder | \$10.39 | \$9.35 | \$8.45 | \$7.49 |
| 171766CX | IPC3SAD6 | 2 | SPST off-(on) | 0.82" | 0.69" | 0.46" | 0.19" | 0.2A @ 250VAC | Solder | 10.39 | 9.35 | 8.45 | 7.49 |
| 171774CX | AV191003C900 | 2 | SPST off-(on) | 1.20" | — | 0.87" | 0.37" | 0.2A @ 48VDC | Screw | 11.95 | 10.84 | 9.75 | 8.79 |

Pushbutton Switches

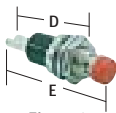


Figure 1

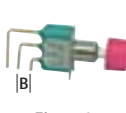


Figure 2

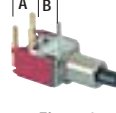


Figure 3

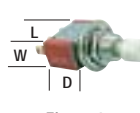


Figure 4



Figure 5

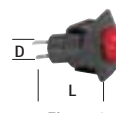


Figure 6

**Quantity
SAVE**

| Part No. | Mfr. Cross Ref. No. | Fig. | Pins | Mounting Hole Dia. | Type () Momentary | Dimensions (L" x W" x D") | | Lead Spacing | | Contact Rating | Terminal Type | Button Color | Pricing | | | | |
|----------|------------------------|------|------|-----------------------|-----------------------|------------------------------|-----|--------------|------|----------------|---------------------|-----------------|---------|--------|--------|--------|--------|
| | | | | | | L | W | A | B | | | | 1 | 10 | 100 | 250 | 1000 |
| 26622CX | MS102 | 1 | 2 | 1/4" | SPST off-(on) | .65 (D) x 1.10 (E) | — | .14 | .17 | 3A @ 125VAC | Solder lugs | Red | \$.55 | \$.50 | \$.45 | \$.35 | \$.29 |
| 26649CX | MS103 | 1 | 2 | 1/4" | SPST on-(off) | .65 (D) x 1.10 (E) | — | .17 | .17 | 3A @ 125VAC | Solder lugs | Black | .55 | .50 | .45 | .35 | .29 |
| 154878CX | PS11-123 | 2 | 3 | 1/4" | SPDT on-(on) | .50 x .27 x .37 | — | .14 | .14 | 5A @ 125VAC | Solder, right angle | Red | .85 | .75 | .69 | .59 | .45 |
| 71642CX | SWB210 | 3 | 2 | 7/32" | SPST off-(on) | .36 x .20 x .33 | .20 | .20 | .20 | 1A @ 120VAC | PC right angle | Black | 2.19 | 1.99 | 1.78 | 1.60 | 1.39 |
| 200774CX | TP12SH8AQE | 3 | 3 | 7/32" | SPDT off-(on) | .32 x .20 x .33 | .20 | .10 | .10 | 1A @ 120VAC | PC right angle | Black | 4.79 | 3.85 | 2.95 | 2.19 | 1.59 |
| 121304CX | CK8121 | 4 | 3 | 1/4" | SPDT on-(on) | .52 x .27 x .38 | — | .185 | .185 | 5A @ 125VAC | Solder lugs | White | 3.59 | 3.25 | 2.95 | 2.65 | 2.39 |
| 28062CX | PB126 | 4 | 3 | 1/4" | SPDT on-(on) | .52 x .28 x .38 | — | .185 | .185 | 5A @ 120VAC | Solder lugs | Red | 3.69 | 3.35 | 2.85 | 2.29 | 1.99 |
| 22200CX | J1881 | 5 | 2* | 3/8" | SPST on-off, Alt† | .65 x .52 x .40 | .25 | — | — | 2A @ 14VDC | 5" Pigtail | White | 1.19 | 1.09 | .94 | .83 | .72 |
| 22218CX | J1882 | 5 | 2* | 3/8" | SPST off-(on) | .65 x .52 x .40 | .25 | — | — | 2A @ 14VDC | 5" Pigtail | Red | 1.09 | .98 | .83 | .67 | .50 |
| 174414CX | R13-510A | 6 | 2 | 1/2" | SPST off-(on) | .67 (L) x .31 (D) | — | .167 | .167 | 3A @ 125VAC | Solder lugs | Red | .79 | .78 | .77 | .74 | .69 |

† Alt = alternate action

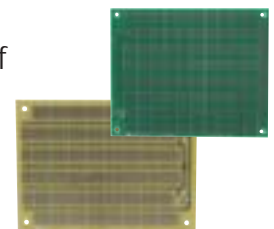
* Lead wires

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Prototyping Boards.





Miniature Basic Lever Switches

- 3 terminals: common; normally open; normally closed
- Size: 1.10"L x 0.40"W x 0.63"H

Quantity
SAVE

OMRON

Honeywell



187805CX



191388CX



159581CX/187792CX
203545CX



159572CX

| Part No. | Product No. | Manufacturer | Actuator Type | Contact Form | Contact Rating | Resistance (Initial) | Service Life (Mech./Elec.) | Terminal Type | Pricing | | |
|----------|---------------|-----------------|---------------------------|--------------|-------------------------|----------------------|----------------------------|---------------------|---------|--------|-------------|
| | | | | | | | | | 1 | 25 | 50 |
| 159572CX | VS10N051C | Highly Electric | Hinged roller (0.60"L) | SPDT-NC | 10A@125VAC, 10A@250VAC | 15milliΩ (max.) | 10M/100k | .183" quick connect | \$2.89 | \$2.54 | \$2.28 |
| 159581CX | VS10N021C2 | Highly Electric | Hinge lever (1.05"L) | SPDT-NC | 10A@125VAC, 10A@250VAC | 15milliΩ (max.) | 10M/100k | .183" quick connect | 2.45 | 2.25 | 1.99 |
| 191388CX | V3-715 | Honeywell | Pin plunger | SPDT-NC | 0.5A@125VAC, 10A@250VAC | — | 10M/1M | .220" solder | 1.55 | 1.25 | .93 |
| 203545CX | V7-3E11D8-022 | Honeywell | Hinge lever (1.07"L) | SPDT-NC | 0.5A@125VAC, 10A@250VAC | — | 10M/100k | .183" quick connect | 4.05 | 3.19 | 2.39 |
| 187792CX | V-10G2-1C24K | Omron | Hinge lever (1.08"L) | SPDT-NC | 0.1A@125VAC, 10A@250VAC | 30milliΩ (max.) | 50M/300k | .183" quick connect | 2.45 | 2.25 | 1.99 |
| 187805CX | V-10G3-1C24K | Omron | Long hinge lever (2.01"L) | SPDT-NC | 0.1A@125VAC, 10A@250VAC | 30milliΩ (max.) | 50M/300k | .183" quick connect | 2.45 | 2.25 | 1.99 |



SS Subminiature Basic Switches

- Economical, subminiature basic switch offers long service life
- Free from overtravel restrictions, permits easy setting
- Lead spacing: A = 0.35"; B = 0.29"
- Dimensions: 0.78"L x 0.25"W x 0.40"H



187709CX



187733CX



159599CX

| Part No. | Product No. | Manufacturer | Actuator Type | Contact Form | Contact Rating | Contact Force | Service Life (Mech./Elec.) | Terminal Type | Pricing | | |
|----------|-------------|-----------------|-----------------------|--------------|--------------------------|---------------|----------------------------|---------------|---------|--------|--------|
| | | | | | | | | | 1 | 25 | 50 |
| 187709CX | SS-5GL | Omron | Hinge lever (0.6"L) | SPDT-NC | 5A @ 125VAC, 3A @ 250VAC | 50g | 30M/200k | Solder | \$1.59 | \$1.45 | \$1.29 |
| 187733CX | SS-5GL2 | Omron | Hinged roller (0.6"L) | SPDT-NC | 5A @ 125VAC, 3A @ 250VAC | 50g | 30M/200k | Solder | 1.25 | 1.09 | .99 |
| 159599CX | SS0505A | Highly Electric | Hinge roller (0.7"L) | SPDT-NC | 5A @ 125VAC, 3A @ 250VAC | 45g | 30M/200k | Solder | 3.25 | 2.92 | 2.59 |

SPST Round Keylock Switches

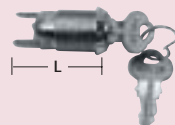
- Used in computer & other security systems
- Key removable from 2 positions • Two keys
- Mounting hole = 0.75" except P/N 106649CX = 0.5"

196648CX: all keys are alike

Includes: Mounting nut



106649CX



105831CX/196648CX

| Part No. | Mfr. Cross Ref. No. | No. Flat, Dia. | Length | Terminal | Voltage/Current | Pricing | | | |
|----------|---------------------|----------------|--------|--------------------|-----------------|---------|--------|--------|--------|
| | | | | | | 1 | 10 | 50 | 100 |
| 106649CX | KS4B | 2, .21" | .55" | Barrel | 125VAC/3A | \$3.59 | \$3.29 | \$2.89 | \$2.49 |
| 105831CX | KS3B | 2, .66" | 1.48" | .25" quick connect | 125VAC/6A | 3.99 | 3.59 | 3.29 | 2.99 |
| 196648CX | 3313E-M | 2, .66" | 1.48" | .25" quick connect | 125VAC/6A | 4.49 | 3.99 | 3.65 | 3.29 |

Magnetic Reed Switches

- NO (normally open) • Contact form: SPST



164081CX

| Part No. | Mfr. Cross Ref. No. | Contact Rating | Size (L" x Dia.) | 1 | 10 | 100 | 1000 |
|----------|---------------------|-------------------------|------------------|-------|-------|-------|-------|
| 171871CX | MKA141011015 | 500mA @ 100VDC | 0.53 x 0.1 | \$.79 | \$.64 | \$.46 | \$.41 |
| 164081CX | MRS1 | 1A @ 250VAC; 1A @ 50VDC | 1.43 x 0.2 | .79 | .63 | .43 | .39 |

Switch Assortment Kit

Includes:

- 20-drawer component cabinet (81701CX), 20 clear plastic drawers (85454CX), 20 clear dividers (85446CX), pg 108 and 30 adhesive labels for drawers to identify parts in kit
- 10 ea. miniature toggle switches (76523CX, 21936CX, 21910CX, 26331CX, 26315CX, 21979CX, 21952CX, 26366CX, 26358CX), pg 97
- 10 ea. slide switches (109170CX), pg 97
- 10 ea. pushbutton switches (26622CX, 26649CX), pg 98
- 10 ea. DIP switches (38818CX, 38842CX), pg 100
- 10 ea. tactile switches (153251CX), pg 101



81701CX



SAVE \$52

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|---------------------|------------|--------------|---------|
| 85061CX | 150 pcs. switch kit | 5.0 | \$98.95 | \$88.95 |

Switch Grab Bags



18235CX



135378CX

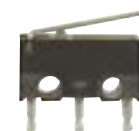
18235CX: 50 pcs. assorted – toggle, pushbutton, rocker and slide switches

135378CX: 1 lb. (approx. 135 pcs.) assorted – toggle, pushbutton, rocker and slide switches

| Part No. | Cross Ref. No. | Wt. (lbs.) | 1 | 10 |
|----------|----------------|------------|--------------|--------|
| 18235CX | GB165 | 0.4 | \$8.75 | \$7.69 |
| 135378CX | GB165LB | 1.0 | 18.95 | 16.95 |

OMRON D2F Series Subminiature Snap-Action Switch

Ideal for a wide variety of applications from household appliances and office equipment to audio and communications equipment.



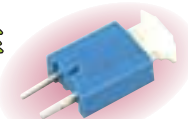
- Actuator type: hinge lever (0.5"L)
- Contact form: SPDT-NC
- Contact rating: 2A @ 30VDC, 3A @ 125VAC
- Initial contact resistance: 30milliΩ max.
- Service life: 1M (mech.); 30k (elec.)
- Terminal type: PCB
- Dimensions: 0.50"L x 0.23"W x 0.26"H
- Lead spacing: 0.2"

| Part No. | Product No. | 1 | 25 | 50 |
|----------|-------------|--------------|--------------|--------------|
| 188867CX | D2F-L | \$.89 | \$.83 | \$.79 |

PCB Plunger Switch

Use in Place of Shorting Block

- SPST (on/off)
- Contact rating: 50mA @ 24VDC
- Non-removable plunger
- Size: 0.2"W x 0.1"D x 0.38"H
- Lead length: 0.1"L
- 10 piece minimum



| Part No. | Description | 10 | 100 | 1000 |
|----------|----------------|--------------|--------------|--------------|
| 172700CX | Plunger switch | \$.10 | \$.08 | \$.06 |



See pages 103-106 for our complete selection of Relays.

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Just place your order by 6PM EST for same business day shipment.

Switches (Continued)

Color Code Legend
New Sale Qty Save Closeout



Pushbutton Binary Coded Decimal (BCD) Switch

26788CX (2 switches shown)

Thumbwheel Binary Coded Decimal (BCD) Switch

(2 switches shown) 26817CX

Pushbutton and Thumbwheel Switch Specifications:

- Contact resistance: 100mΩ max.
- 1/16" maximum panel thickness
- Gold plated BE-CU alloy contacts
- 0.15A @ 50VAC/28VDC
- Break before make
- Operating temperature: -40°C to +85°C
- Continuous load: 1 amp max.
- Front snap-tab mounting with end plates
- Switches snap together

| Part No. | Mfr. Cross Ref. No. | Description | Size (L" x W" x D") | Character Height | Pricing | | | |
|----------|---------------------|-------------------------------|---------------------|------------------|---------|--------|--------|--------|
| | | | | | 1 | 10 | 50 | 100 |
| 26788CX | MX72 | 10-position pushbutton | 1.2 x 0.3 x 1.7 | 0.19" | \$5.69 | \$5.15 | \$4.65 | \$4.15 |
| 26761CX | MXEP2 | Mounting end plates for 26788 | 1.2 x 0.2 x 1.1 | — | 1.15 | .99 | .89 | .79 |
| 26817CX | MX83 | 10-position thumbwheel | 1.2 x 0.3 x 1.9 | 0.25" | 4.49 | 3.95 | 3.55 | 3.19 |
| 26770CX | MXEP3 | Mounting end plates for 26817 | 1.2 x 0.2 x 1.3 | — | 1.05 | .88 | .84 | .77 |

Mini Pushbutton BCD Switch

- Operating temperature: -10°C to +65°C
- Switches snap together
- Positive logic ("0" all open output)
- 28VDC @ 10A
- Break before make

| Part No. | Mfr. Cross Ref. No. | Description | Size (L" x W" x D") | Character Height | 1 | 10 | 100 |
|----------|---------------------|----------------------|---------------------|------------------|--------|--------|--------|
| 136557CX | MX061 | 10-position straight | .59 x .30 x 1.0 | 0.12" | \$3.79 | \$3.41 | \$3.06 |

Excell Rotary DIP Switches

- Gold plated contacts to ensure reliable, low resistance connection
- Fully sealed construction
- Op force: 500g-cm max.
- Material: 94V-0 grade, UL approved fire retardant plastic
- Lead spacing: A = 0.1"; B = 0.3"
- Terminals: PC pin leads
- Life: 10,000 cycles min.
- Max. switching load rating: 25mA @ 24VDC

| Part No. | Product No. | Position | Adjust | Code Type | W" x D" x H" | 1 | 10 | 50 | 100 |
|----------|-----------------|----------|--------|-----------|-----------------|--------|--------|--------|--------|
| 139635CX | ERD110RS(DRD10) | 10 | top | BCD | .39 x .39 x .20 | \$2.59 | \$2.33 | \$2.07 | \$1.86 |
| 139651CX | ERD116RS | 16 | top | Hex | .39 x .20 x .39 | 2.75 | 2.49 | 2.22 | 1.99 |



139635CX

139651CX



Rotary DIP Switches

- Fully sealed construction
- Contact and terminal material: copper alloy plated
- Make and break current rating: 30mA @ 30VDC for 10,000 cycles
- 215992CX: 0.1" x 0.3" pin spacing (standard through hole)
- 216004CX: 0.1" pin spacing (right angle through hole)
- Rotor and switch body: plastic (UL94V-0)

| Part No. | Product No. | Position | Adjust | Code type | W" x D" x H" | 1 | 10 | 100 | 1000 |
|----------|-------------|----------|--------|-----------|-----------------|--------|--------|--------|--------|
| 215992CX | HAB16 | 16 | Top | HEX | .39 x .39 x .20 | \$2.45 | \$2.10 | \$1.85 | \$1.55 |
| 216004CX | HAB10R | 10 | Side | BCD | .44 x .30 x .40 | 2.45 | 2.10 | 1.85 | 1.55 |

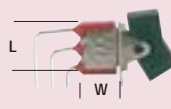


215992CX

216004CX

Rocker and Lever Type Switches

- Contact rating: 5A @ 120VAC; 2A @ 250VAC, except P/N 196154CX: 15A @ 125VAC; 10A @ 250VAC
- Operating temp.: -30° to 85°C
- Electrical life: 50,000 make and break cycles at full load
- Contact resistance: 10mΩ typical
- Dielectric strength: 1000Vrms @ sea level
- Insulation resistance: 10MΩ min., except P/N 196154CX: 100MΩ min.



Quantity
SAVE



196154CX

202497CX

140530CX
(Vertical)

163344CX

| Part No. | Mfr. Cross Ref. No. | Pins | Type | Dimensions (ins.) | | | Lead Spacing | Lead Type | Pricing | | | |
|----------|---------------------|------|----------------|-------------------|-----|-----|--------------|-------------------------|---------|--------|--------|--------|
| | | | | L | W | D | | | 1 | 10 | 100 | 1000 |
| 196154CX | R30NSA | 2 | SPST on-off | 1.07 | .42 | .77 | N/A | Panel mt. quick discon. | \$1.75 | \$1.59 | \$1.44 | \$1.35 |
| 202497CX | 526VBU | 2 | SPST on-off | .89 | .49 | .64 | N/A | Panel mt. quick discon. | .22 | .20 | .18 | .17 |
| 140530CX | CK7101 | 3 | SPDT on-on | .50 | .50 | .27 | .150" | Right angle PC (vert.) | 1.49 | 1.34 | 1.21 | 1.09 |
| 163344CX | CKD103J5W | 3 | SPDT on-off-on | .67 | .47 | .59 | N/A | Panel mt. solder eyelet | 1.05 | .85 | .68 | .50 |

Jameco's Low-Price Guarantee

We'll match the print advertised price of any like product. It's that simple!

DIP Switches

Quantity
SAVE



206359CX

139002CX

38842CX

139011CX

- Switch contacts: SPST
- Switches are numbered
- 50VDC @ 100mA
- Molded construction

SALE



38800CX

- Standard switches have raised lever
- LP switches are flush to casing
- Pre-tinned leads

Compatible Socket Chart, see page 80 for Sockets

| Switch | Socket | Switch | Socket | Switch | Socket |
|----------|----------|----------|---------|----------|---------|
| 109057CX | 112192CX | 38826CX | 37161CX | 101856CX | 38113CX |
| 206359CX | 51570CX | 38834CX | 37161CX | 38797CX | 38607CX |
| 38818CX | 51570CX | 38842CX | 37372CX | 38800CX | 39378CX |
| 139002CX | 51570CX | 139011CX | 37372CX | 202921CX | 37372CX |

| Part No. | Mfr. Cross Ref. No.* | Pos. | Pricing | | | |
|----------|----------------------|------|---------|--------|--------|--------|
| | | | 1 | 10 | 100 | 1000 |
| 109057CX | 206-2 | 2 | \$.75 | \$.68 | \$.61 | \$.55 |
| 206359CX | 206-3 | 3 | .79 | .65 | .55 | .43 |
| 38818CX | 206-4 | 4 | .65 | .55 | .49 | .45 |
| 139002CX | 206-4LP | 4 | .79 | .70 | .55 | .44 |
| 38826CX | 206-6 | 6 | .99 | .89 | .79 | .72 |
| 38834CX | 206-7 | 7 | .95 | .86 | .68 | .50 |
| 38842CX | 206-8 | 8 | .89 | .80 | .72 | .64 |
| 139011CX | 206-8LP | 8 | .85 | .76 | .61 | .47 |
| 202921CX | DIPSWRA8 | 8 | \$.27 | .22 | .19 | .17 |
| 101856CX | 206-9 | 9 | .85 | .79 | .69 | .49 |
| 38797CX | 206-10 | 10 | .95 | .86 | .68 | .51 |
| 38800CX | 206-12 | 12 | 1.05 | .99 | .93 | .56 |

* Manufacturer may vary

Tri-State DIP Switch

- Switch contacts: bussed, tri-state
- Labeled tri-state positions (+, 0, -)
- Contact rating: 24VDC @ 25mA
- Two isolated busses
- Compatible socket, use P/N 37372CX, pg 80
- 8 positions
- Pre-tinned leads



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 50 | 100 |
|----------|---------------------|--------|--------|--------|--------|
| 138991CX | ETA108E | \$1.95 | \$1.75 | \$1.55 | \$1.35 |

Replacement Switches for AT-Style Computer Cases

PC Pushbutton Switches

- Alternate action double pole switch
- Contacts rated at 250VAC
- UL/CSA/VDE approved
- Size: 0.9"L x 0.7"W x 0.9"D



127044CX

174238CX

Quantity
SAVE

| Part No. | Description | Current | 1 | 10 | 100 |
|----------|----------------|----------|--------|--------|--------|
| 127044CX | PC push button | 7.5A .. | \$2.95 | \$2.25 | \$1.55 |
| 174238CX | PC push button | 8A | 2.29 | 1.95 | 1.46 |

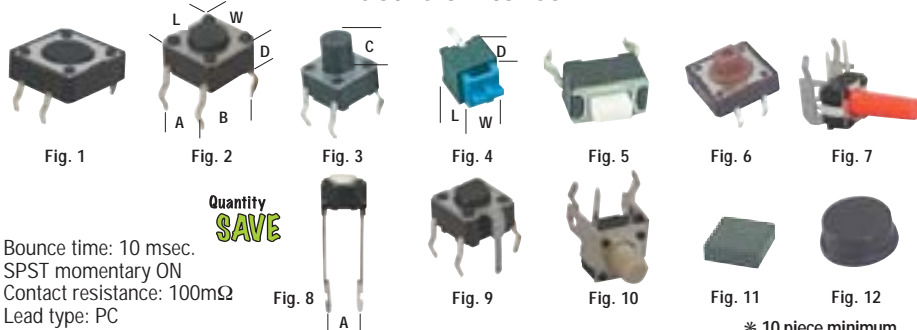
PC Rocker Switch

- For mini-tower cases
- DPST
- Contacts rated at 250VAC
- UL/CSA approved
- Size: 0.9"L x 1.2"W x 1.4"D



| Part No. | Description | Current | 1 | 10 | 100 |
|----------|-------------|----------|--------|--------|--------|
| 127028CX | PC rocker | 10A | \$2.95 | \$2.69 | \$2.39 |

Tactile Switches



- Bounce time: 10 msec.
- SPST momentary ON
- Contact resistance: 100mΩ
- Lead type: PC

Quantity
SAVE

| Part No. | Mfr. Cross Ref. No.* | Fig. | Pins | Dimensions (in.) | | | | Lead Spacing | | Contact Rating (mA @ VDC) | Button Color | Pricing | | | |
|----------|----------------------|------|------|------------------|-----|-----|-----|--------------|-----|---------------------------|--------------|---------|-------|-------|------------|
| | | | | L | W | D | C | A* | B* | | | 1 | 10 | 100 | 250 |
| 122972CX | DTS1212 | 1 | 4 | .47 | .47 | .18 | — | .20 | .50 | 20 @ 15 | Black | \$.26 | \$.23 | \$.19 | \$.17 |
| 119010CX | KTIIBICM | 2 | 8 | .24 | .24 | .15 | .30 | .17 | .25 | 20 @ 15 | Black | .27 | .24 | .22 | .20 |
| 149948CX | KT11P4CM | 3 | 4 | .24 | .24 | .15 | .13 | .17 | .25 | 20 @ 15 | Black | *.23 | .21 | .19 | .17 |
| 115086CX | KIE22 | 4 | 2 | .24 | .24 | .22 | — | .25 | .25 | 20 @ 15 | Blue | *.19 | .12 | .10 | .09 |
| 199726CX | EVQ11A04M | 8 | 2 | .24 | .24 | .14 | .30 | .20 | — | 20 @ 15 | White | *.19 | .17 | .13 | .11 |
| 200361CX | EVQPB04K† | 9 | 5 | .24 | .24 | .14 | .30 | .17 | .26 | 20 @ 15 | Black | .29 | .26 | .21 | .16 |
| 137189CX | PBS103 | 1 | 4 | .47 | .47 | .17 | — | .20 | .50 | 50 @ 12 | Black | .39 | .35 | .32 | .19 |
| 153251CX | SDT620K | 2 | 4 | .24 | .24 | .15 | .06 | .17 | .25 | 50 @ 12 | Black | .29 | .25 | .20 | .18 |
| 155248CX | KRS-3550-BK | 5 | 2 | .24 | .14 | .15 | — | .27 | .27 | 50 @ 12 | Black | .22 | .20 | .16 | .15 |
| 155256CX | KRS-3550-WH | 5 | 2 | .24 | .14 | .15 | — | .27 | .27 | 50 @ 12 | White | .35 | .27 | .22 | .16 |
| 206341CX | KPT1107A | 5 | 2 | .24 | .14 | .15 | — | .25 | .25 | 50 @ 12 | White | .52 | .39 | .25 | .16 |
| 155379CX | KRS-1273B | 6 | 4 | .47 | .47 | .14 | .14 | .17 | .53 | 50 @ 12 | Brown | .39 | .35 | .31 | .26 |
| 206332CX | MJTP1236E | 10 | 2 | .27 | .27 | .28 | .14 | .18 | .18 | 50 @ 12 | White | .47 | .36 | .29 | .16 |
| 202956CX | KSM06330 | 7 | 2 | .24 | .24 | .15 | .38 | .11 | .18 | 50 @ 24 | Red | .35 | .19 | .12 | .12 |

* 10 piece minimum

Tactile Switch Caps

10 piece minimum

| Part No. | Mfr. Cross Ref. No.* | Fig. | Description | Size (in.) | Material | For Use With | 10 | 100 | 250 |
|----------|----------------------|------|-------------|-----------------------|----------|--------------|-------|-------|-------|
| 155389CX | KRS-CAP-A | 11 | Square | .47"L x .47"W x .16"H | Plastic | P/N 155379CX | \$.15 | \$.11 | \$.10 |
| 155408CX | KRS-CAP-B | 12 | Round | .50"Dia. x .25"H | Plastic | P/N 155379CX | .15 | .13 | .11 |

* Manufacturer may vary

† 200361CX: with ground pin



B3F Series Miniature Tactile Key Switch

Miniature, low profile and easy mounting. Applications: audio, office & communications equipment, measuring instruments, TVs, VCRs, etc.

- Extended mechanical/electrical service life
- Flux-tight base structure allows automatic soldering of the key switch onto a PC board
- Lead spacing: A = 0.18"; B = 0.26"



| Part No. | Type | Operating Force | Dimensions (H x Pitch) | 1 | 25 | 50 | 100 |
|----------|----------|----------------------|------------------------|-------|-------|-------|-------|
| 162886CX | B3F-1000 | General purpose 100g | 4.3 mm x 6.5 mm | \$.45 | \$.40 | \$.36 | \$.33 |



SP5T Rotary Switch

- Panel mount • Fixed stop • 1/8" screwdriver slotted shaft • 0.06" solder terminals
- 36° angle of throw • Single pole, 5-positions • Contact resistance: 20mΩ max.
- Insulation resistance: 1,000MΩ minimum between mutually insulated parts
- Material: stainless steel shaft and detent contact springs; brass terminals (gold plated over nickel plate); zinc, cadmium plated bushing

SALE

| Part No. | Product No. | Description | 1 | 10 | 100 |
|----------|-----------------|--------------------------------|--------|--------|--------|
| 184727CX | 50AB36-01-1-5-F | SP5T panel mount rotary switch | \$1.71 | \$1.55 | \$1.41 |

Rotary Switches

- Panel mount • Make before break • Solder lugs • Layers: 1
- Contact rating: 30VDC @ 0.3A • Insulation resistance: 10MΩ min.
- Contact resistance: 30mΩ • Lug size: 0.07" • Mounting hole diameter: 3/8"
- Material: solid brass bushings, slotted aluminum shafts, plated frame, phenolic contact wafer (except for P/N 101565CX - plastic casing)
- Compatible with Jameco rotary knobs P/N 102787CX and 104176CX, pg 111

Includes: Washer and nut

| Part No. | Mfr. Cross Ref. No.* | Poles | Position | Shaft Size (L" x Dia.) | 1 | 10 | 100 |
|----------|----------------------|-------|----------|------------------------|--------|--------|--------------|
| 101531CX | RS0261 | 1 | 12 | 0.46 x 0.25 | \$1.29 | \$1.10 | \$.85 |
| 101573CX | RS022 | 2 | 6 | 0.46 x 0.25 | 1.35 | 1.15 | .90 |
| 101565CX | RS023 | 3 | 4 | 1.16 x 0.25 | 1.95 | 1.59 | 1.25 |
| 101557CX | RS024 | 4 | 3 | 0.46 x 0.25 | 1.09 | .93 | .69 |

* Manufacturer may vary

Quantity
SAVE



16-Button Indoor/Outdoor Keypads

- 9-pin .100" headers
- Fully sealed snap-dome contact
- For indoor or outdoor use
- Contact rating: 24VDC @ 10mA resistive
- Life test: 3,000,000 cycles per key
- Compatible with MOS, TTL and DTL (10Ω max.)
- Recommended connector: P/N 103190CX header and P/N 100765CX pin, pg 82
- Size (housing): 4.7"W x 1.7"H x 0.4"T



196171CX



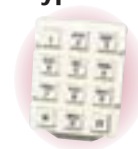
152063CX

* Prepackaged: order in increments of 10 or 100

| Part No. | Description | 1 | 10 | 100 |
|----------|--------------------------|---------|---------|---------|
| 196171CX | 2x8 matrix keypad | \$16.95 | \$15.29 | \$13.75 |
| 152063CX | 4x4 matrix keypad | 14.95 | 13.49 | 11.95 |
| 103190CX | Header housing (10-pin) | .42 | .39 | .36 |
| 100765CX | Header pin (10 per pack) | *.11 | .11 | .09 |

12-Button Telephone Keypads

- White plastic
- 8-pin .100" header
- Contact rating: 12VDC @ 20mA
- Contact resistance: 200Ω max.
- Tactile type keypad
- Life test: 1,000,000 cycles per key
- Size: 2.8"L x 2.2"W x 0.6"H



153488CX

| Part No. | Description | 1 | 10 | 100 |
|----------|----------------------|--------|--------|--------|
| 190561CX | Numeric keypad | \$8.75 | \$7.45 | \$5.59 |
| 153488CX | Alpha numeric keypad | 9.49 | 8.55 | 7.69 |

16-Button Numeric Keypad

- 4 x 4 matrix keypad
- 8-position solder pad
- Contact rating: 24VDC @ 20mA
- Contact resistance: 200Ω max.
- Life test: 1,000,000 life cycles per key
- Size: 3.0"L x 2.8"W x 0.6"H



| Part No. | Description | 1 | 10 | 100 |
|----------|----------------|--------|--------|--------|
| 169244CX | Numeric keypad | \$7.95 | \$6.95 | \$6.25 |

See page 111 for our complete selection of Instrumentation Knobs.



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Corporate Customers

Call 1-800-831-4242 for details today.

24VDC Liquid Level Sensors

Combine the control box and sensor to activate a water valve. When sensor is triggered by either a tank in full or empty condition, it will trigger an output status change.



SALE

176241CX: Control Box

- Input voltage: 24VDC @ 10A
- Output voltage: 24VDC @ 10A
- Size: 2.5"L x 1.8"W x 1.2"H

176250CX (Empty)

- Diameter: 1.0"
- Overall Length: 3.9"
- Travel Distance: 2.0"



176268CX (Full)

- Diameter: 1.1"
- Overall Length: 2.6"
- Travel Distance: .72"



| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------|--------|--------|--------|
| 176241CX | Control box | \$8.15 | \$7.41 | \$6.73 |
| 176250CX | Sensor empty type | 9.95 | 8.95 | 7.95 |
| 176268CX | Sensor full type | 11.45 | 9.75 | 7.29 |



-1.1 to 2.5 PSI Pressure Sensor

- Measurable pressure range: -1.1 to 2.5 PSI
- Maximum load pressure: twice of rated pressure
- Operating voltage: 5V @ <10mA
- Maximum excitation voltage: 8V
- Pressure type: gauge pressure
- Pressure media: non-corrosive gas
- On-chip amplification and temp. compensations
- Pre-calibration of offset voltage and span
- 1/8" diameter tubing is applicable
- Size: .55"L x .47"W x .20"H

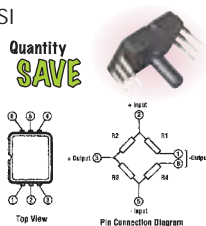


Quantity SAVE

| Part No. | Product No. | 1 | 10 | 100 |
|----------|------------------|---------|---------|---------|
| 196103CX | XFPN-025-KPGRNW1 | \$24.95 | \$21.25 | \$15.95 |

Servoflo 0 to 7 PSI Pressure Sensor

- Max. load pressure: 10.5 PSI
- Input excitation: 1.5mA
- Span output: 60-140mV
- Bridge resistance: 5kΩ ±1kΩ
- Accuracy: ±5% full scale
- High output, accuracy and stability
- Low noise
- 1/8" diameter tubing is applicable
- Size: 0.5"L x 0.5"W x 0.2"H



| Part No. | Product No. | 1 | 10 | 100 |
|----------|-------------|---------|---------|--------|
| 163731CX | FPM07PG | \$11.95 | \$10.19 | \$7.65 |

0 to 1.45 PSI Pressure Sensor

- Typical full scale span @ 35mV: 0-10kPa (0-1.45 PSI)
- Maximum pressure (P_{MAX}): 75kPa (10.875 PSI)
- Operating volt. (typical): 3VDC @ 6mA
- Applications: air movement control, level indicators, leak detection, robotics and industrial controls
- 1/8" diameter tubing applicable
- Size: 0.7"Dia. x 0.78"Thick (with nozzle)



| Part No. | Product No. | 1 | 10 | 100 |
|----------|-------------|--------|--------|--------|
| 218827CX | MPX10GS | \$8.99 | \$7.99 | \$7.19 |

GORDOS-Type Digital I/O Modules

- Industry standard package and pinout
- High immunity to false operation
- 4000Vrms optical isolation
- Continuous duty
- Color coded by function
- Capacitance: 8pF typical (input/output)



| Part No. | Mfr. Cross Ref. No. | Description | Input Voltage | Output Voltage | Pricing | | |
|----------|---------------------|-------------------|---------------|-----------------|---------|--------|--------|
| | | | | | 1 | 10 | 50 |
| 184541CX | ODC-5 | DC output (red) | 5VDC | 3 to 60VDC @ 3A | \$7.29 | \$6.85 | \$6.39 |
| 184524CX | OAC-5 | AC output (black) | 5VDC | 120VAC @ 3A | 6.49 | 6.19 | 5.75 |
| 184583CX | IDC-5 | DC input (white) | 3.3 to 32VDC | 5VDC | 7.91 | 7.19 | 6.54 |



12VDC Inductive Proximity Switch Sensors

Cylindrical and Square Styles

- Operating voltage range: 10-30VDC
- Nominal operating voltage: 12VDC
- Current consumption: 10mA max.
- Switching frequency: 1.5kHz
- Sensing target: inductive type - magnetic metal
- Sensing distance: ±10% (tin)
- Short circuit protected
- LED status indicator
- Fast response
- 6' long cable
- Pre-tinned pigtail

155547CX (17mm)



167020CX (12mm)



248858CX (12mm)



155571CX (18mm)



| Part No. | Product No. | Output Circuit | Effec. Dist. (Iron) | Standard Target (Iron) (mm) | Size (L" x W" x H") | Mounting Hole (in.) | Pricing | | |
|----------|-------------|----------------|---------------------|-----------------------------|---------------------|---------------------|---------|--------|--------|
| | | | | | | | 1 | 10 | 25 |
| 155547CX | S18-05N-1 | NPN | 0-4.0mm | 17 x 17 x 1 | 1.4 x 1.4 x 0.7 | 0.112 | \$9.95 | \$8.95 | \$7.95 |
| 167020CX | TS12-02N-1 | NPN | 0-1.6mm | 12 x 12 x 1 | 1.8"L x 0.46"Dia. | 0.46 | 20.65 | 18.61 | 16.75 |
| 248858CX | TS12-02P-1 | PNP | 0-1.6mm | 12 x 12 x 1 | 1.8"L x 0.46"Dia. | 0.46 | 19.99 | 17.99 | 15.99 |
| 155571CX | TS18-05N-1 | NPN | 0-4.0mm | 18 x 18 x 1 | 1.6"L x 0.70"Dia. | 0.70 | 24.95 | 21.21 | 15.91 |

Ultrasonic Sensor Sets

- Use for motion or distance sensing
- Frequency: 40kHz ±1.0kHz
- Aluminum case



136653CX:

Transmit/Receive Set

- Capacitance: 2000pF ±30%
- Case size: 0.47"H x 0.62" Dia.
- Transmitter: bandwidth 4.0kHz/112dB, sound pressure level 119dB/40±1.0kHz
- Lead length/spacing: 0.39"
- Receiver: bandwidth 3.5kHz @ -71dB, min. sensitivity 65dB/40±1.0kHz (0dB vs 1V μbar) R=3.9kΩ

136653CX

139491CX:

Transmit/Receive Set

- Capacitance: 2000pF ±20%
- Lead length/spacing: 0.28"
- Transmitter: bandwidth 5.0kHz/100dB, sound pressure level 112dB/40 ±1.0kHz
- Receiver: bandwidth 5.0kHz @ -75dB, min. sensitivity 67dB/40 ±1.0kHz (0dB vs 1V μbar) R=3.9kΩ
- Case size: 0.30"H x 0.43" Dia.



139491CX

| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 50 |
|----------|---------------------|--------|--------|--------|
| 136653CX | 40TR16F | \$6.95 | \$6.29 | \$5.65 |
| 139491CX | 40TR12B | 6.95 | 6.29 | 5.65 |

Latched Hall Effect Sensor

- SP (south pole): on
- NP (north pole): off
- Supply voltage: 20Vcc
- Supply current: 4mA
- Output current: 20mA
- Max. operating point: ≤ 130
- Max. release point (gauss): ≤ 130



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 100 | 1000 |
|----------|---------------------|--------|--------|--------|--------|
| 174043CX | HI-300 | \$0.95 | \$0.86 | \$0.77 | \$0.59 |

Vibration/Tilt Switch Sensor

Detects motion or vibration when the switch is mounted such that its main axis is near to the horizontal.

- Contact form: SPDT
- Maximum contact load: 24VDC/115VAC @ 0.5A
- Typical contact resistance: 1Ω (measured at 5VDC @ 0.01A with switch tilted 45° beyond operating point)
- Tilt: one plane only; ±10 degrees included angle
- Minimum operating temperature: -37°C



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 100 |
|----------|---------------------|--------|--------|--------|
| 235926CX | Series 3004 | \$1.49 | \$1.25 | \$1.15 |

Sale items highlighted in yellow.

Jameco Special Values!

Great quantity discounts highlighted in green.



Small High-Current PC Mount Relays

Quantity
SAVE

SALE

New Lower
Prices

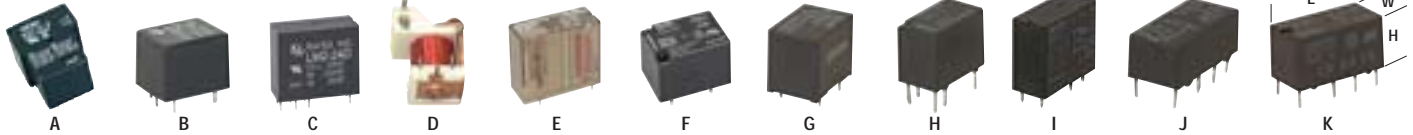
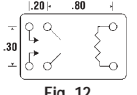
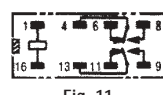
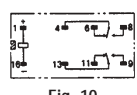
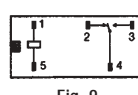
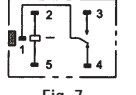
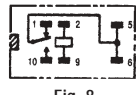
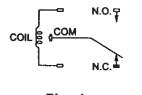
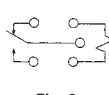
An inexpensive means of switching loads up to 30 amps. While these small, low-cost relays are designed primarily for the appliance industry and the heating, air conditioning and ventilation markets, they are also well suited for automotive load management and other applications.

- Meets UL class F insulation standard
- Mechanical life expectancy: 10 million operations
- Electrical life expectancy: 100,000 operations at rated loads
- Dielectric strength: 1500Vrms (between contact and coil)

104926CX: Open frame relay

129349CX: Immersion cleanable, plastic sealed case

144186CX: For use with universal relay card (P/N 128910CX, pg 235)

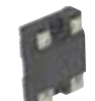
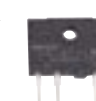


| Part No. | Product No. | Manufacturer | Potter & Brumfield Cross Reference | Fig. | Contact Form | Coil Voltage | Coil (Ohms) | Contact Voltage | Contact Current | Pins | L x W x H (in.) | Pricing | | | |
|----------|-----------------|---------------|------------------------------------|------|--------------|--------------|-------------|-----------------|-----------------|------|-------------------|---------|--------|--------|--------|
| | | | | | | | | | | | | 1 | 10 | 50 | 100 |
| 145752CX | T90S1D12-12* | Magnecraft | T90S1D12-12 | 1A | SPST | 12VDC | 155 | 240VAC | 30A | 5 | 1.2 x 1.0 x .77 | \$2.45 | \$2.10 | \$1.85 | \$1.49 |
| 195864CX | RP838012 | Schrack | — | 5E | SPST | 12VDC | 270 | 250VAC | 12A | 4 | 1.1 x .48 x 1.0 | 1.35 | 1.09 | .81 | .57 |
| 134949CX | FKD130P5DC5V | Rayex | T90S5D12-5 | 1A | SPDT | 5VDC | 27 | 240VAC/28VDC | 20A | 6 | 1.3 x 1.1 x .80 | 2.49 | 2.15 | 1.93 | 1.65 |
| 174449CX | LU-5 | Rayex | T81H5D215 | 3B | SPDT | 5VDC | 125 | 120VAC/24VDC | 1A/2A | 6 | .60 x .40 x .45 | 1.79 | 1.66 | 1.55 | 1.49 |
| 187151CX | G5LE-1DC5 | Omron | — | 7G | SPDT | 5VDC | 63 | 120VAC/30VDC | 10A/8A | 5 | .90 x .65 x .75 | 1.49 | 1.30 | 1.15 | 1.15 |
| 187240CX | G5V-1-DC5 | Omron | — | 8H | SPDT | 5VDC | 166.7 | 125VAC/24VDC | .5A/1A | 6 | .50 x .30 x .40 | 2.05 | 1.79 | 1.59 | 1.59 |
| 104926CX | 733SPDT12VDC* | Song Chuan | T90N5D12-12 | 1D | SPDT | 12VDC | 155 | 240VAC/28VDC | 20A/10A | 6 | 1.2 x .90 x .63 | 1.85 | 1.69 | 1.49 | 1.27 |
| 129349CX | 832-IC-S | Song Chuan | T90S5D12-12 | 1A | SPDT | 12VDC | 155 | 277VAC/28VDC | 20A/10A | 6 | 1.2 x 1.0 x .75 | 2.11 | 1.90 | 1.69 | 1.39 |
| 186669CX | G2R-14-DC12 | Omron | — | 9I | SPDT | 12VDC | 275 | 250VAC/30VDC | 10A | 5 | 1.2 x .51 x 1.0 | 2.99 | 2.62 | 2.31 | 2.09 |
| 172937CX | JS1-12V | Nais (Aromat) | T72M5D121-12 | 6F | SPDT | 12VDC | 400 | 125VAC/24VDC | 10A/5A | 5 | .85 x .62 x .63 | 1.09 | .99 | .89 | .75 |
| 144186CX | JZC-22F | Velleman | VR15M121C | 2B | SPDT | 12VDC | 337 | 120VAC/28VDC | 15A | 5 | .80 x .64 x .80 | 3.79 | 3.39 | 3.05 | 2.75 |
| 174431CX | LEG12F | Rayex | T7CS5D12 | 2B | SPDT | 12VDC | 400 | 120VAC/24VDC | 15A | 5 | .76 x .62 x .60 | 1.49 | 1.29 | 1.19 | 1.09 |
| 184461CX | G5V-1-DC12 | Omron | — | 8H | SPDT | 12VDC | 960 | 125VAC/24VDC | .5A/1A | 6 | .50 x .30 x .40 | 2.25 | 1.79 | 1.58 | 1.42 |
| 187282CX | G6A-234PSTUSDC5 | Omron | — | 10J | DPDT | 5VDC | 125 | 125VAC/30VDC | .3A/1A | 8 | .80 x .33 x .40 | 3.95 | 3.63 | 3.33 | 3.07 |
| 174377CX | LM2-12D | Rayex | RKA5DZ12 | 4C | DPDT | 12VDC | 270 | 250VAC/30VDC | 5A | 8 | 1.2 x .48 x 1.0 | 2.49 | 2.25 | 1.95 | 1.75 |
| 187258CX | G5V-2-DC12 | Omron | — | 11K | DPDT | 12VDC | 288 | 125VAC/30VDC | .5A/2A | 8 | .81 x .40 x .45 | 2.49 | 2.28 | 2.02 | 1.82 |
| 200740CX | G5V-2-HIDC24 | Omron | — | 11K | DPDT | 24VDC | 1152 | 125VAC/30VDC | .5A/2A | 8 | .81 x .40 x .45 | 2.59 | 2.35 | 1.89 | 1.39 |
| 215909CX | RKA-7DZ-12 | P & B | — | 12I | DPST-NO | 12VDC | 270 | 250VAC/24VDC | 5A/5A | 6 | 1.16 x .57 x 1.05 | 2.29 | 1.95 | 1.69 | 1.39 |

*Manufacturer may vary

DC/AC and DC/DC Solid State Relays

- Screw terminal with hardware
- Photo isolation
- Metal mounting base
- Manufacturer may vary

Quantity
SAVE176698CX
(Fig. 1)153058CX
(Fig. 2)192815CX
(Fig. 3)162341CX
(Fig. 4)176735CX
(Fig. 5)187004CX
(Fig. 6)164996CX
(Fig. 7)127790CX
(Fig. 8)

| Part No. | Product No. | Mfr. | Control Voltage | Type | Contact Style | Contact Voltage | Contact Current | Pins | Fig. | Terminal Type | Agency Approval | Size L" x W" x H" | Pricing | | | |
|-------------------------------|------------------|----------|-----------------|-------|---------------|-----------------|-----------------|------|------|----------------|-----------------|----------------------|---------|--------|--------|--------|
| | | | | | | | | | | | | | 1 | 10 | 50 | 100 |
| Solid State Relays DC/AC Type | | | | | | | | | | | | | | | | |
| 153058CX | KSD203AC2 | COSMO | 4-32VDC | DC/AC | SPST | 240VAC | 3A | 4 | 2 | Solder Lead | — | 1.4 x 0.3 x 0.9 | \$9.95 | \$8.95 | \$7.95 | \$7.25 |
| 162341CX | ESR51024-010 | Excel | 3-32VDC | DC/AC | SPST | 240VAC | 10A | 4 | 4 | Screw Terminal | UL | 1.7 x 1.1 x 2.3 | 15.95 | 14.39 | 12.95 | 11.65 |
| 162368CX | ESR51024-025 | Excel | 3-32VDC | DC/AC | SPST | 240VAC | 25A | 4 | 4 | Screw Terminal | UL | 1.7 x 1.1 x 2.3 | 21.95 | 19.79 | 17.79 | 16.05 |
| 162405CX | ESR51024-040 | Excel | 3-32VDC | DC/AC | SPST | 240VAC | 40A | 4 | 4 | Screw Terminal | UL | 1.7 x 1.1 x 2.3 | 22.99 | 20.69 | 18.69 | 16.79 |
| 105081CX | 615-8500 | Teledyne | 3-32VDC | DC/AC | SPST | 250VAC | 10A | 4 | 3 | Screw Terminal | UL | 1.7 x 1.1 x 2.3 | 15.99 | 14.39 | 12.99 | 11.69 |
| 192815CX | KSD240AC8 | COSMO | 4-32VDC | DC/AC | SPST | 250VDC | 40A | 4 | 3 | Screw Terminal | — | 1.8 x 0.6 x 2.3 | 17.14 | 15.58 | 14.17 | 13.75 |
| 175214CX | KB20C02A | Kyoto | 3-32VDC | DC/AC | SPST | 280VAC | 2A | 4 | 1 | Solder Lead | — | 1.4 x 0.3 x 1.5 | 5.95 | 5.69 | 5.32 | 5.05 |
| 127790CX | D2W202F | Crydom | 3-32VDC | DC/AC | SPST | 280VAC | 2A | 4 | 8 | Solder Lead | UL/CSA | 1.7 x 0.4 x 1.3 | 7.17 | 6.59 | 6.19 | 6.19 |
| 176698CX | KB20C06A | Kyoto | 3-32VDC | DC/AC | SPST | 280VAC | 6A | 4 | 1 | Solder Lead | — | 1.4 x 0.3 x 0.9 | 9.99 | 8.99 | 7.99 | 7.19 |
| 176719CX | KD20C40AX | Kyoto | 3-32VDC | DC/AC | SPST | 280VAC | 40A | 4 | 5 | Screw Terminal | — | 1.7 x 0.9 x 2.3 | 19.99 | 17.99 | 16.19 | 14.59 |
| 176735CX | KD20C75AX | Kyoto | 3-32VDC | DC/AC | SPST | 280VAC | 75A | 4 | 5 | Screw Terminal | — | 1.7 x 0.9 x 2.3 | 39.95 | 35.99 | 32.39 | 29.15 |
| 204441CX | TD2420Q | Crydom | 4-15VDC | DC/AC | 4PST | 280VAC | 20A | 13 | — | Solder Lead | UL/CSA | 2.3 x 1.8 x 0.9 | 56.95 | 51.25 | 43.59 | 32.69 |
| 186992CX | G3NA-210B-DC5-24 | Omron | 5-24VDC | DC/AC | — | 240VAC | 10A | 4 | 6 | Screw Terminal | UL/CSA | 1.7 x 1.1 x 2.3 | 14.29 | 13.55 | 12.89 | 12.25 |
| 187004CX | G3NA-220B-DC5-24 | Omron | 5-24VDC | DC/AC | — | 240VAC | 20A | 4 | 6 | Screw Terminal | UL/CSA | 1.7 x 1.1 x 2.3 | 19.95 | 17.95 | 15.95 | 13.95 |
| 164988CX | S101S02 | Sharp | 1.2VDC@20mA | DC/AC | — | 125VAC | 1.5A | 4 | 7 | Solder Lead | UL/CSA | 0.9 x .16 x .63 | 3.95 | 3.49 | 2.95 | 2.25 |
| 164996CX | S202TA1 | Sharp | 1.2VDC@20mA | DC/AC | — | 200VAC | 2.0A | 4 | 7 | Solder Lead | UL/CSA | 0.9 x .16 x .63 | 4.95 | 4.49 | 4.05 | 3.65 |
| Solid State Relay DC/DC Type | | | | | | | | | | | | | | | | |
| 172591CX | KF0602D | Kyoto | 3-32VDC | DC/DC | SPST | 60VDC | 2A | 4 | 1 | Solder Lead | — | 1.4 x 0.3 x 0.9 | \$9.95 | \$8.95 | \$7.95 | \$6.95 |
| 175222CX | KF0604D | Kyoto | 3-32VDC | DC/DC | SPST | 60VDC | 4A | 4 | 1 | Solder Lead | — | 1.5 x 0.3 x 0.9 | 11.95 | 11.25 | 10.25 | 9.22 |
| 176647CX | KG1005D | Kyoto | 3-32VDC | DC/DC | SPST | 120VDC | 5A | 4 | 5 | Screw Terminal | — | 2.3 x 1.7 x 0.9 | 26.99 | 24.29 | 21.79 | 19.59 |
| 176655CX | KG1010D | Kyoto | 3-32VDC | DC/DC | SPST | 120VDC | 10A | 4 | 5 | Screw Terminal | — | 2.3 x 1.7 x 0.9 | 29.99 | 26.99 | 24.29 | 21.89 |

† Zero crossing

DIP Relays

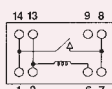
• Logic control levels • Long life with reliable operation • Moisture resistant • Compatible with IC sockets • Compact design/construction • Excellent for PCB applications



Quantity
SAVE



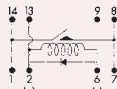
106462CX



Schematic 1



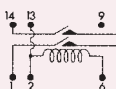
99901CX



Schematic 2



206543CX



Schematic 3

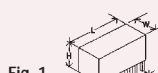


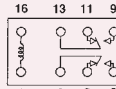
Fig. 1



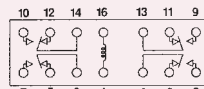
Fig. 2



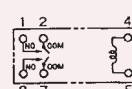
Fig. 3



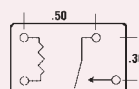
Schematic 4



Schematic 5



Schematic 6



Schematic 7

| Part No. | Mfr. Cross Reference No. | Manufacturer | Contact Schem. | Contact Form | Coil Voltage | Coil Ohms | Contact Voltage | Contact Current | Pins | Jameco Socket | Fig. | Size L x W x H (in.) | Leads A x B x C (in.) | Pricing | | | |
|----------|--------------------------|-------------------|----------------|--------------|--------------|-----------|-----------------|-----------------|------|---------------|------|----------------------|-----------------------|---------|--------|--------|--------|
| | | | | | | | | | | | | | | 1 | 10 | 50 | 100 |
| 106462CX | 201A05 | Excel Cell Elect. | 1 | SPST-NO | 5VDC | 500 | 100VDC | 0.5A | 8 | 37161 | 3 | .78 x .25 x .20 | .10 x .40 x .30 | \$2.15 | \$1.81 | \$1.52 | \$1.25 |
| 138430CX | 2D1A05 | Excel Cell Elect. | 2 | SPST-NO | 5VDC | 500 | 100VDC | 0.5A | 8 | 37161 | 3 | .77 x .30 x .22 | .10 x .40 x .30 | 2.29 | 1.95 | 1.65 | 1.34 |
| 215896CX | OJE-SS-109LMF | OEG | 7 | SBT-NO | 9VDC | 400 | 250VAC/30VDC | 3A/3A | 4 | — | 1 | .71 x .39 x .57 | .50 x .60 x .30 | 2.29 | 1.95 | 1.69 | 1.39 |
| 106471CX | 201A12 | Excel Cell Elect. | 1 | SPST-NO | 12VDC | 1000 | 100VDC | 0.5A | 8 | 37161 | 3 | .78 x .25 x .20 | .10 x .40 x .30 | 2.29 | 1.95 | 1.65 | 1.39 |
| 138448CX | 2D1A1200 | Excel Cell Elect. | 2 | SPST-NO | 12VDC | 1000 | 100VDC | 0.5A | 8 | 37161 | 3 | .77 x .30 x .22 | .10 x .40 x .30 | 2.25 | 1.95 | 1.75 | 1.49 |
| 138456CX | 202A05 | Excel Cell Elect. | 3 | DPST-NO | 5VDC | 140 | 100VDC | 0.5A | 8 | 37161 | 3 | .77 x .30 x .28 | .10 x .40 x .30 | 3.49 | 3.15 | 2.69 | 2.19 |
| 173913CX | AZ831-2C-5DSE | American Zettler | 4 | DPDT | 5VDC | 125 | 125VAC/100VDC | .5A/1.25A | 8 | 37401 | 1 | .79 x .38 x .44 | .18 x .28 x .29 | 2.35 | 2.15 | 1.69 | 1.25 |
| 139977CX | RSB55 | Shin Mei | 4 | DPDT | 5VDC | 125 | 120VAC/30VDC | 1A/2A | 8 | 37372 | 1 | .79 x .39 x .37 | .20 x .40 x .30 | 2.49 | 2.25 | 1.95 | 1.75 |
| 99338CX | LM12C00 | Clare | 4 | DPDT | 6VDC | 71 | 125VAC/100VDC | 2A | 8 | 37372 | 1 | .79 x .40 x .43 | .20 x .40 x .30 | 2.49 | 2.25 | 1.79 | 1.35 |
| 99311CX | DS2Y-S-DC12V* | Aromat (NAIS) | 4 | DPDT | 12VDC | 720 | 110VAC/30VDC | .3A/1A | 8 | 37372 | 1 | .79 x .40 x .43 | .20 x .40 x .30 | 2.49 | 2.31 | 2.05 | 1.75 |
| 99901CX | LX200D00 | Clare | 4 | DPDT | 12VDC | 720 | 125VAC/100VDC | 2A | 8 | 37372 | 1 | .79 x .40 x .30 | .20 x .40 x .30 | 6.95 | 6.25 | 5.63 | 4.49 |
| 99320CX | LM12E00* | NEC | 4 | DPDT | 24VDC | 1110 | 125VAC/100VDC | 2A | 8 | 37372 | 1 | .79 x .40 x .43 | .20 x .40 x .30 | 2.95 | 2.69 | 2.39 | 2.15 |
| 136549CX | DS4E-M-DC5V* | Aromat | 5 | 4PDT | 5VDC | 62.5 | 125VAC/30VDC | .6A/2A | 14 | 112299 | 2 | 1.40 x .40 x .36 | .20 x .30 x .30 | 5.49 | 4.95 | 4.45 | 4.05 |
| 176313CX | DS4E-M-DC12V | Aromat | 5 | 4PDT | 12VDC | 360 | 125VAC/30VDC | .6A/2A | 14 | 112299 | 2 | 1.40 x .40 x .36 | .20 x .30 x .30 | 6.95 | 6.29 | 5.29 | 4.39 |
| 206543CX | DS4E-S-DC5V-1C-N137 | Aromat | 6 | 4PDT | 5VDC | 125 | 250VAC/220VDC | 2A | 14 | 112299 | 2 | 1.40 x .40 x .42 | .20 x .30 x .30 | 8.45 | 7.59 | 6.09 | 4.59 |

* Manufacturer may vary

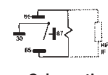
Potter & Brumfield Type Plastic Enclosed Construction Relays

VF4 Type

- Dielectric strength: 500VDC (between contact & coil)
- Operating temperature: -35°C to +85°C
- Contact current: 40A • Terminal type: quick connect
- Coil voltage: 12VDC except P/N 171521CX (5VDC)
- Normally open (NO), normally closed (NC)
- Dimensions: 1.1"L x 1.1"W x 1.0"H



Schematic 1



Schematic 2



171432CX (Fig. 1)



171441CX (Fig. 2)



171459CX (Fig. 3)

| Part No. | Mfr. Cross Ref. No. | P&B Cross Reference | Fig. | Contact Form | Coil Ohms | Contact Schematic | Contact Voltage | Pins | Pricing | | | |
|----------|---------------------|---------------------|------|--------------|-----------|-------------------|-----------------|------|---------|--------|--------|--------|
| | | | | | | | | | 1 | 10 | 50 | 100 |
| 171459CX | LD1A-12F | VF4-81F11S01 | 3 | SPST-NO | 78 | 2 | 14VDC | 4 | \$1.89 | \$1.75 | \$1.55 | \$1.29 |
| 171441CX | 961A-1A12D | VF4-11F11 | 2 | SPST-NO | 90 | 2 | 14VDC | 4 | 2.35 | 2.20 | 2.14 | 2.09 |
| 171521CX | LD5F | VF4-45D11 | 1 | SPDT | 14 | 1 | 5VDC | 5 | 1.69 | 1.35 | 1.05 | .71 |
| 148582CX | LD12F | VF4-85F11 | 1 | SPDT | 78 | 1 | 12VDC | 5 | 2.49 | 2.25 | 1.95 | 1.75 |
| 171432CX | 961A-1C-12DM | VF4-81F11 | 1 | SPDT | 90 | 1 | 12VDC | 5 | 2.99 | 2.69 | 2.25 | 1.65 |

Relay Socket with Coil Diode

VF4 Type

- For use with P/N 148582CX, left
- 12 AWG: 2 black & 1 blue wire
- 18 AWG: 1 black & 1 red wire
- Contact voltage/current: 12V/20A
- Diode coil suppression • 7.5" wire



| Part No. | Ref. No. | 1 | 10 | 50 | 100 |
|----------|----------|--------|--------|--------|--------|
| 170624CX | RSD03 | \$2.35 | \$2.15 | \$1.89 | \$1.55 |

See page 76 for our complete selection of Molex Power Connectors and page 84 for Amphenol Connectors.

VF4 Series 40A General Purpose Plug-In Relay

- SPDT
- Expected life: 10 million operations; 100,000 mechanical operations @ 40A
- Dielectric strength: 500Vrms between contact and coil
- Initial operate time: 7ms typical with rated coil voltage applied
- 0.250" quick connected and printed circuit terminals



| Part No. | Product No. | Voltage | Resistance | 1 | 10 | 25 | 50 |
|----------|-------------|---------|------------|--------|--------|--------|--------|
| 282554CX | VF4-45F11 | 12VDC | 90Ω | \$3.19 | \$3.03 | \$2.78 | \$2.48 |

S89R Series Bistable, Impulse Relay

- Contact rating: 15A
- Nominal power: 9W@25°C
- Contact life: 10 million operations; 50,000 mechanical operation
- Initial breakdown voltage: 1,500Vrms, 60Hz
- Dust cover with octal plug-in base • Current: 75mA



| Part No. | Product No. | Voltage | Resistance | 1 | 10 | 25 | 50 |
|----------|----------------|---------|------------|---------|---------|---------|---------|
| 282546CX | S89R11APP1-120 | 120VAC | 260Ω | \$32.80 | \$32.14 | \$27.39 | \$27.09 |

ODC Series Input/Output Module Relay

- Switch form: SPST-NO
- Red case DC output module
- 3A, 3-60VDC output
- Isolation: 4,000Vrms, 60Hz
- Capacitance: 8pF typical (input to output)



| Part No. | Product No. | Voltage | Resistance | 1 | 10 | 25 | 50 |
|----------|-------------|---------|------------|--------|--------|--------|--------|
| 282511CX | ODC-5 | 5VDC | 250Ω | \$9.25 | \$8.99 | \$8.85 | \$8.06 |

KUL Series 10A Magnetic Latching Relay

- Single Coil • Contact arrangement: DPDT
- Contact life: 10 million mechanical operations; 100,000 electrical operations min.
- Dielectric strength: 500Vrms between open contacts; 1,500Vrms between adjacent contacts; 1,500Vrms between contacts and coils
- 0.187" (4.75mm) quick connect terminal/solder



| Part No. | Product No. | Voltage | Resistance | 1 | 10 | 25 | 50 |
|----------|----------------|---------|------------|---------|---------|---------|---------|
| 282466CX | KUL-11A15S-120 | 120VAC | 3,700Ω | \$32.29 | \$31.23 | \$27.84 | \$26.19 |

These products ship from a separate warehouse. Each warehouse will accrue separate shipping charges.

KB KHAU Series General Purpose Relays

- Initial breakdown voltage: 500Vrms, 60Hz between contacts; 1240Vrms, 60Hz between all other elements
- Expected life: 10 million operations; 100,000 mechanical operations (min.)
- Nominal power: DC coils – 0.9W, 0.5W min., AC coils – 1.2W, 0.55W min.
- Contact arrangement: 4PDT
- Socket mount, solder terminals • Silver-cadmium oxide



| Part No. | Product No. | Voltage | Resistance | 1 | 10 | 25 | 50 |
|----------|----------------|---------|------------|--------|--------|--------|--------|
| 282301CX | KHAU-17D11-12 | 12VDC | 160Ω | \$5.19 | \$4.90 | \$4.85 | \$4.60 |
| 282319CX | KHAU-17D12-24 | 24VDC | 650Ω | 5.59 | 5.39 | 5.17 | 4.77 |
| 282280CX | KHAU-17A11-24 | 24VAC | 160Ω | 5.45 | 5.29 | 5.17 | 4.77 |
| 282271CX | KHAU-17A11-120 | 120VAC | 3,900Ω | 6.29 | 5.99 | 5.81 | 5.37 |

DIN Rail Relay Socket for KHAU Series

| Part No. | Product No. | Pins | 1 | 10 | 25 | 50 |
|----------|-------------|------|--------|--------|--------|--------|
| 282183CX | 27E894 | 14 | \$7.15 | \$6.79 | \$6.50 | \$5.78 |

KB KUP Series General Purpose Relays

- Enclosed relays (plain case) • Contact rating: 10A @ 28VDC or 120VAC
- Contact arrangement: 3PDT • Initial dielectric strength: 1,200Vrms between open contacts; 2,200Vrms between adjacent contacts; 2,200Vrms between contacts and coils
- Nom. coil pwr: DC coils–1.2W; AC coils–2.7W
- 0.187" (4.75mm) quick connect/solder
- 282482CX: with indicator lamp



| Part No. | Product No. | Voltage | Resistance | Current (mA) | 1 | 10 | 25 | 50 |
|----------|---------------|---------|------------|--------------|---------|--------|--------|--------|
| 282503CX | KUP-14D15-24 | 24VDC | 472Ω | 51 | \$10.39 | \$9.87 | \$8.89 | \$7.90 |
| 282491CX | KUP-14D15-110 | 110VDC | 10,000Ω | 11 | 13.09 | 12.44 | 11.63 | 9.78 |
| 282474CX | KUP-14A15-120 | 120VAC | 1,700Ω | 24 | 9.69 | 9.21 | 8.96 | 8.59 |
| 282482CX | KUP-14A35-120 | 120VAC | 1,700Ω | 24 | 11.65 | 11.07 | 10.26 | 9.59 |

Relay Sockets for KUP Series (11-blade square)

| Part No. | Product No. | Description | Type | 1 | 10 | 25 | 50 |
|----------|-------------|-------------------------|----------|--------|--------|--------|--------|
| 282124CX | 27E121 | Screw term. socket | Standard | \$6.29 | \$5.99 | \$5.47 | \$5.00 |
| 282175CX | 27E893 | Screw term., snap mount | DIN Rail | 6.89 | 6.55 | 6.38 | 5.80 |

KB K10 Series 15A General Purpose Miniature Relays

- Contact arrangement: DPDT
- Contact life: 10 million operations; 100,000 mechanical operations min.
- Initial dielectric strength: 1,000Vrms between contacts; 1,500Vrms between adjacent contacts; 1,500Vrms between contacts and coils
- Nominal power: DC coils – 0.0W; AC coils – 1.2W



| Part No. | Product No. | Voltage | Resistance | Current (mA) | 1 | 10 | 25 | 50 |
|----------|----------------|---------|------------|--------------|--------|--------|--------|--------|
| 282255CX | K10P-11D15-12 | 12VDC | 160Ω | 75 | \$6.99 | \$6.49 | \$6.09 | \$5.42 |
| 282263CX | K10P-11D15-24 | 24VDC | 650Ω | 37 | 5.99 | 5.69 | 5.50 | 5.29 |
| 282247CX | K10P-11A15-120 | 120VAC | 3,900Ω | 11 | 6.99 | 6.49 | 6.09 | 5.42 |

DIN Rail Relay Socket for K10 Series (8-blade square)

| Part No. | Product No. | Description | 1 | 10 | 25 | 50 |
|----------|-------------|----------------------------|--------|--------|--------|--------|
| 282191CX | 27E895 | Screw terminal, snap mount | \$5.05 | \$4.80 | \$4.38 | \$3.90 |

KB DIN Rail Mount Socket and Track Mounting System

For use with KHAU, KUP, and K10 series DIN relay sockets

- 282204CX: End clip insulator for preventing sockets from moving sideways or sliding off track
- 282108CX: Steel mounting clip with #6-32 screw (7/16")



| Part No. | Product No. | Description | 1 | 10 | 25 | 50 |
|----------|-------------|----------------------------|------|------|------|------|
| 282204CX | 40G432 | Mounting plastic Insulator | \$59 | \$57 | \$55 | \$46 |
| 282108CX | 24A071 | Steel mounting clip | .49 | .46 | .40 | .35 |
| 282116CX | 24A110 | 36" mounting track | 9.39 | 8.92 | 8.54 | 6.93 |

♦ These products ship from a separate warehouse. Each warehouse will accrue separate shipping charges.

KB KRPA Series General Purpose Octal Relays

- Contact material: silver cadmium oxide
- Contact rating: 10A @ 240VAC
- Initial dielectric strength: 500Vrms between open contacts; 1,500Vrms between all elements
- Expected life: 10 million operation min.; 100,000 operations min. (mechanical) @ rated load
- Initial insulation resistance: 1000M ohms, min.



| Part No. | Product No. | Coil Voltage | Coil Resis. | Coil Curr. (mA) | 1 | 10 | 25 | 50 |
|----------|----------------|--------------|-------------|-----------------|---------|---------|---------|---------|
| 282440CX | KRPA-5DG-24* | 24VDC | 472 | 51 | \$14.99 | \$14.21 | \$13.42 | \$12.64 |
| 282431CX | KRPA-5AG-120* | 120VAC | 2,250 | 17.5 | 14.99 | 14.21 | 13.42 | 12.64 |
| 282378CX | KRPA-11DG-12† | 12VDC | 120 | 100 | 9.95 | 9.49 | 9.21 | 8.49 |
| 282335CX | KRPA-11AG-12† | 12VAC | 24 | 168 | 15.09 | 14.32 | 13.81 | 12.75 |
| 282386CX | KRPA-11DG-24† | 24VDC | 472 | 51 | 9.69 | 9.21 | 8.96 | 8.34 |
| 282394CX | KRPA-11DN-24† | 24VDC | 472 | 51 | 10.39 | 9.89 | 9.53 | 8.80 |
| 282351CX | KRPA-11AG-24† | 24VAC | 85 | 84 | 9.99 | 9.49 | 9.21 | 8.49 |
| 282343CX | KRPA-11AG-120† | 120VAC | 2,250 | 17.5 | 10.75 | 10.21 | 9.85 | 9.09 |
| 282360CX | KRPA-11AN-120† | 120VAC | 2,250 | 17.5 | 11.45 | 10.89 | 10.48 | 9.58 |
| 282423CX | KRPA-14DG-24† | 24VDC | 472 | 51 | 11.29 | 10.73 | 10.34 | 9.54 |
| 282415CX | KRPA-14AN-120† | 120VAC | 2,250 | 17.5 | 12.19 | 11.58 | 11.14 | 10.29 |
| 282407CX | KRPA-14AG-120† | 120VAC | 2,250 | 17.5 | 11.79 | 11.20 | 10.82 | 9.98 |

* SPDT contact arrangement; † DPDT contact arrangement; ‡ 3PDT contact arrangement

Relay Sockets for KRPA Series

| Part No. | Product No. | Contact Arr. | Pins | Type | 1 | 10 | 25 | 50 |
|----------|-------------|--------------|------|----------|--------|--------|--------|--------|
| 282132CX | 27E122 | DPDT | 8 | Standard | \$3.59 | \$3.49 | \$3.45 | \$3.16 |
| 282159CX | 27E891 | DPDT | 8 | DIN Rail | 4.49 | 4.27 | 4.10 | 3.76 |
| 282141CX | 27E123 | 3PDT | 11 | Standard | 4.89 | 4.65 | 4.24 | 3.77 |
| 282167CX | 27E892 | 3PDT | 11 | DIN Rail | 7.15 | 6.79 | 6.19 | 5.50 |

KB KHU Series General Purpose Relay

- 4PDT • Nominal power: 1.2W; 0.55W minimum operate @ 25°C
- Expected life: 10 million operations; 100,000 mechanical operations min at rated loads
- Initial breakdown voltage: 500Vrms 60Hz between open contacts; 1,240Vrms 60Hz between all other elements



| Part No. | Product No. | Voltage | Resistance | Current | 1 | 10 | 25 | 50 |
|----------|---------------|---------|------------|---------|---------|---------|---------|---------|
| 282327CX | KHU-17A11-120 | 120VAC | 3,900Ω | 11mA | \$23.49 | \$21.65 | \$19.29 | \$16.91 |

KB KUHP Series 30A Power Relay

- Contact arrangement: DPDT • 0.250" quick connect/solder
- Contact rating: 20A @ 120/240VAC • Nominal power: 2.7W
- Contact mechanical life: 10 million operations
- Initial dielectric strength: 1,200Vrms between open contacts; 3,750Vrms between adjacent contacts; 2,000Vrms between coil and frame



| Part No. | Product No. | Voltage | Resistance | Current | 1 | 10 | 25 | 50 |
|----------|----------------|---------|------------|---------|---------|--------|--------|--------|
| 282458CX | KUHP-11A51-120 | 120VAC | 1,700Ω | 24mA | \$10.25 | \$9.99 | \$9.77 | \$8.93 |

KB PRD Series Heavy Duty Open Relay

- SPDT • Expected life: 100,000 operations at rated load
- Contact rating: 25A @ 277VAC
- Nominal power: -9.8W @ 25°C
- Auxiliary snap action switch rating: 5A @ 120VAC, 60Hz
- Initial breakdown voltage: 2,000Vrms min. between all elements and ground



| Part No. | Product No. | Voltage | Resistance | Current | 1 | 10 | 25 | 50 |
|----------|--------------|---------|------------|---------|---------|---------|---------|---------|
| 282520CX | PRD-5AY0-120 | 120VAC | 290Ω | 85mA | \$19.79 | \$18.24 | \$16.25 | \$14.19 |

KB R10 Series General Purpose Multicontact AC/DC Relay

- 4PDT • Expected mechanical life: 100 million operations typical
- Dielectric strength: 1,000Vrms between open contacts; 1,000Vrms between all other conductors
- Capacitance: 2pF typical between contacts; 2pF between contacts and coils; 30pF typical between coil and frame



| Part No. | Product No. | Voltage | Resistance | 1 | 10 | 25 | 50 |
|----------|---------------|---------|------------|---------|---------|---------|---------|
| 282538CX | R10-E1X4-V185 | 12VDC | 185Ω | \$14.55 | \$13.82 | \$12.86 | \$12.39 |

W58 Series Thermal Circuit Breakers

- Max. operating voltage: 50VDC; 250VAC 50/60Hz
- Interrupt capacity: 2,000A @ 50VDC; 1,000A @ 250VAC 50/60Hz
- Endurance cycling: >1,000 operations @ 200% of rating
- Dielectric strength: >1,500Vrms
- Push button to reset breaker

| Part No. | Product No. | Amp | Resistance | 1 | 10 | 25 | 50 |
|----------|---------------|-----|------------|--------|--------|--------|------|
| 282562CX | W58-XB1A4A-10 | 10 | 0.014 | \$2.99 | \$2.95 | \$2.89 | 2.69 |
| 282571CX | W58-XB1A4A-15 | 15 | 0.010 | 3.19 | 3.03 | 2.97 | 2.81 |
| 282589CX | W58-XB1A4A-20 | 20 | 0.006 | 3.19 | 3.03 | 2.97 | 2.81 |
| 282597CX | W58-XB1A4A-30 | 30 | — | 3.19 | 3.03 | 2.97 | 2.81 |

CNS Series Multifunction Time Delay Relays

- DPDT • Rating: 10A @ 30VDC or 277VAC
- Mechanical life: 10 million operations
- Electrical life: 100,000 operations at rated load
- Dielectric strength: 1,000Vrms, 60Hz between open contacts; 1,500Vrms, 60Hz between all other conductors

Power requirement: 10W @ 240VAC/VDC; 5W @ 120VAC/VDC; 1W @ 25VAC/VDC

| Part No. | Product No. | Voltage | Timing Functions | Pins | 1 | 10 | 25 | 50 |
|----------|-------------|---------------|------------------|------|---------|---------|---------|---------|
| 282212CX | CNS-35-92 | 24-240VAC/VDC | 4 | 8 | \$62.89 | \$59.75 | \$55.71 | \$52.87 |
| 282221CX | CNS-35-96 | 24-240VAC/VDC | 8 | 11 | 71.65 | 68.07 | 66.42 | 66.14 |

CNT Series Multifunction, Digital Time Delay Relay/Counter

- DPDT • 11-pin octal style plug
- Digital adjustment via thumbwheel switches
- Maximum count: 1 to 999; 10 to 9,990; 100 to 99,900
- Maximum count rate: 100 counts per second
- Rating: 10A @ 30VDC or 277VAC resistive
- Mechanical life: 10 million operations
- Electrical life: 100,000 operations min. at rated load
- Dielectric strength: 1,000Vrms, 60Hz between open contacts; 1,500Vrms between all other contacts

Power requirement: 10W @ 240VAC/VDC; 5W @ 120VAC/VDC; 1W @ 24VAC/VDC

| Part No. | Product No. | Voltage | 1 | 10 | 25 | 50 |
|----------|-------------|---------------|---------|---------|---------|---------|
| 282239CX | CNT-35-96 | 24-240VAC/VDC | \$82.95 | \$81.99 | \$81.04 | \$78.50 |

† These products ship from a separate warehouse. Each warehouse will accrue separate shipping charges.

Beta Electric General Purpose Relays

Pin Type Terminals

- DPDT • 8-pin octal style plug
- Contact rating: 120/240VAC, 28VDC @ 10A
- Ambient operating temp.: -10°C to +50°C
- Size: 1.4"L x 1.4"W x 2.7"H

BTA1 Series Relays

| Part No. | Product No. | NTE Cross Ref. | Coil Voltage | 1 | 10 | 50 |
|----------|----------------|----------------|--------------|--------|--------|--------|
| 139766CX | BTA1-2C-12VDC | R02-11D10-12 | 12VDC | \$9.49 | \$8.55 | \$7.69 |
| 139740CX | BTA1-2C-120VAC | R02-11A10-120 | 120VAC | 9.95 | 8.79 | 7.99 |

BTA1 Series Sockets

| Part No. | Voltage | Current | Pins | Dimensions | 1 | 10 | 50 |
|----------|---------|---------|------|-----------------------|--------|--------|--------|
| 141145CX | 250VAC | 20 amps | 8 | 2.0"L x 1.6"W x 0.8"H | \$3.99 | \$3.65 | \$2.99 |
| 141153CX | 250VAC | 20 amps | 11 | 2.0"L x 1.7"W x 1.2"H | 5.19 | 4.85 | 4.19 |

Quick Connect Blade Terminal – BTA2 Series

Flat terminals (0.187" x 0.020") for standard plug-in mounting; also accepts quick-connect receptacles or direct soldering.

- Contact rating: 120VAC/28VDC @ 13A; 240VAC @ 10A
- Ambient temperature operating: -30°C to +50°C
- Size: 1.5"L x 1.4"W x 2.2"H • 3PDT • 11-pin

| Part No. | Product No. | NTE Cross Ref. | Coil Voltage | 1 | 10 | 50 |
|----------|---------------|----------------|--------------|--------|--------|--------|
| 139854CX | BTA2-3C-24VDC | R10-14D10-24 | 24VDC | \$8.69 | \$8.63 | \$8.39 |

BTA2 Series Socket

| Part No. | Voltage | Current | Pins | Dimensions | 1 | 10 | 50 |
|----------|---------|---------|------|-----------------------|--------|--------|--------|
| 141161CX | 250VAC | 20 amps | 11 | 3.0"L x 1.4"W x 1.0"H | \$3.95 | \$3.56 | \$3.20 |



Rayex General Purpose Relays

Rayex LB2 Series

- DPDT • 8-pin
- Contact rating: 240VAC/30VDC @ 12A
- Mechanical life: 10,000,000 operations
- Electrical life: 100,000 operations minimum at rated load

| Part No. | Product No. | P & B Cross Ref. | Coil Voltage | 1 | 10 | 50 | 100 |
|----------|-------------|------------------|--------------|--------|--------|--------|--------|
| 172718CX | LB2-12DS | K10-11D15-12 | 12VDC | \$4.99 | \$4.49 | \$3.99 | \$3.59 |
| 175564CX | LB2-24DS | K10-11D15-24 | 24VDC | 5.99 | 5.49 | 4.93 | 4.49 |
| 175572CX | LB2-110AS | K10-11A15-120 | 110VAC | 6.25 | 5.49 | 4.99 | 4.39 |

Rayex LB2 Socket

- DIN rail snap socket for LB2 relays

| Part No. | Product No. | P & B Cross Ref. | Pins | 1 | 10 | 50 |
|----------|-------------|------------------|------|--------|--------|--------|
| 175530CX | PTF-08A-A | 27E895 | 8 | \$5.95 | \$5.39 | \$4.85 |

Rayex LB4H Series

- 4PDT • 14-pin
- Insulation resistance: 1,500MΩ @ 500VDC
- Mechanical life: 10,000,000 operations
- Electrical life: 100,000 operations minimum at rated load
- Contact rating: 240VAC/30VDC @ 5A; except P/N 183011CX 220VAC/24VDC @ 5A

| Part No. | Product No. | P & B Cross Ref. | Coil Voltage | 1 | 10 | 50 | 100 |
|----------|-------------|------------------|--------------|--------|--------|--------|--------|
| 183011CX | GM4PDT12DF | KHAU-17D12-12 | 12VDC | \$6.95 | \$6.38 | \$6.04 | \$4.99 |
| 175601CX | LB4H-24DS | KHAU-17D12-24 | 24VDC | 4.95 | 4.45 | 3.99 | 3.59 |
| 175610CX | LB4H-110AS | KHAU-17A12-120 | 110VAC | 4.25 | 3.85 | 3.45 | 3.25 |

Rayex LB4H Socket

- DIN rail snap socket for LB4H relays

| Part No. | Product No. | P & B Cross Ref. | Pins | 1 | 10 | 50 |
|----------|-------------|------------------|------|--------|--------|--------|
| 175556CX | PYF-14A-A | 27E894 | 14 | \$3.95 | \$3.49 | \$2.95 |

Reed Type Relay

- Manufacturer: Bestar
- Contact form: SPST-NO
- Coil voltage: 12VDC • Coil: 1050Ω
- Contact voltage: 120VAC/60VDC • Contact current: 0.1A
- Dielectric strength: 1500VDC (between contact and coil)
- 4-pin • Operating temperature: -30°C to +60°C • Terminal type: PCB solder

| Part No. | Mfr. Cross Ref. No. | Dimensions | 1 | 10 | 50 | 100 |
|----------|---------------------|-----------------------|--------|--------|--------|--------|
| 111448CX | RC108T | 1.0"L x .37"W x .38"H | \$3.35 | \$3.32 | \$2.29 | \$2.26 |

T9A Series Relay

Low Cost PC Board or Panel Mount Only

- Contact form: SPDT
- Coil voltage: 12VDC
- Coil: 155Ω • Contact voltage: 240VAC/28VDC
- Contact current: 20A/10A • 5-pin
- Terminal type: 0.1" disconnect (2); 0.25" disconnect (3)
- Mechanical life expectancy is 10 million operations
- Operating temperature: -55°C to +85°C
- Dielectric strength: 1500VAC (between open contacts)
- Dimensions: 2.0"L x 1.6"W x 1.8"H

| Part No. | Mfr. Cross Ref. No. | P & B Cross Ref. | 1 | 10 | 50 | 100 |
|----------|---------------------|------------------|--------|--------|--------|--------|
| 137357CX | 953-IC-12DM | T9AS5D52-12 | \$2.55 | \$2.45 | \$2.19 | \$1.75 |

See pages 80 – 82 for our selection of sockets and connectors.

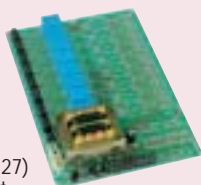


Universal Relay Card Kit 64-Piece Kit

An electronic controller that switches higher currents while providing insulation between the controller and the controlled devices.

- 8 channels expandable to 15 w/ 8 ea. P/N 144186CX, pg 103
- Relay output: maximum 5A/220VAC
- TTL or 5V CMOS inputs (recommend P/N 34315CX, pg 27)
- Contact voltage: 12VDC/250mA • Difficulty level: expert

SALE



128910CX

Requires: 220 or 125VAC power source

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|---------------------------|---------------|------------|---------|---------|
| 128910CX | K6714 | 8.3"L x 5.9"W | 1.8 | \$59.95 | \$53.95 |
| 144186CX | VR15M121C relay (JZC-22F) | | 0.028 | 3.79 | 3.39 |

1.2" (30mm) PCB Mountable Speaker

- Round frame design
- Mylar diaphragm
- Impedance: 8Ω
- Nominal input: 0.15W; max. input: 0.2W
- Frequency range: 700 – 5000Hz
- Pin spacing: 15mm
- Ideal for PC board mounting
- Solder leads
- Output SPL: 82 dB
- Dimensions: 1.2"Dia. x 0.5"D



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 100 |
|----------|---------------------|--------|--------|--------|
| 135722CX | PCM415 | \$2.15 | \$1.79 | \$1.59 |

For speaker cables and hookup wire, see page 61.



Round Ferrite Speakers

- Pre-tinned speaker lugs
- Large magnet
- Anodized metal surfaces
- Braided copper voice coil leads
- Paper diaphragm

| Part Number | Mfr. Cross Ref. No. | Dimensions (Dia. " x D") | Input | | Impedance (Ω) | Output SPL (dB) | Frequency Range (Hz) | Magnet Size (Dia. " x H") | Pricing | | |
|-------------|---------------------|--------------------------|---------|---------|---------------|-----------------|----------------------|---------------------------|---------|--------|--------|
| | | | Nom (W) | Max (W) | | | | | 1 | 10 | 100 |
| 135589CX | FE200 | 2.0 x 0.7 | 0.2 | 0.4 | 8 | 83 | 420 – 5000 | 1.3 x 0.4 | \$1.59 | \$1.33 | \$1.09 |
| 10840CX | FE201 | 2.2 x 0.7 | 0.2 | 0.4 | 8 | 88 | 400 – 4500 | 1.3 x 0.4 | 1.59 | 1.35 | .99 |
| 177130CX | 57RF07 | 2.2 x 0.8 | 0.5 | 0.9 | 45 | 88 | 500 – 8000 | 1.6 x 0.5 | .54 | .49 | .43 |
| 135714CX | FE202 | 2.6 x 0.8 | 0.3 | 0.5 | 8 | 88 | 340 – 4000 | 1.3 x 0.4 | .65 | .56 | .50 |

Quantity **SAVE**

For speaker wire, see page 59



135589CX Side



135589CX Back

Square Ferrite Speakers

- Pre-tinned speaker lugs
- Large magnet
- Anodized metal surfaces
- Braided copper voice coil leads
- Paper diaphragm

| Part Number | Mfr. Cross Ref. No. | Dimensions (Dia. " x D") | Input | | Impedance (Ω) | Output SPL (dB) | Frequency Range (Hz) | Magnet Size (Dia. " x H") | Pricing | | |
|-------------|---------------------|--------------------------|---------|---------|---------------|-----------------|----------------------|---------------------------|---------|--------|--------|
| | | | Nom (W) | Max (W) | | | | | 1 | 10 | 100 |
| 135693CX | FEB200 | 2.0 x 0.7 | 0.2 | 0.3 | 8 | 82 | 500 – 6000 | 1.3 x 0.5 | \$1.59 | \$1.45 | \$1.29 |
| 249463CX | 66SF25 | 2.6 x 0.8 | — | 0.5 | 25 | 10 | 320 – 4000 | 1.3 x 0.5 | 2.49 | 2.09 | 1.59 |
| 31958CX | FEB216 | 2.6 x 0.8 | 0.2 | 0.4 | 16 | 85 | 330 – 8000 | 1.3 x 0.5 | 2.25 | 1.99 | 1.79 |
| 99995CX | FEB204 | 2.6 x 0.9 | 3.0 | 4.0 | 4 | 95 | 300 – 14000 | 1.8 x 0.5 | 2.49 | 2.25 | 1.99 |



99995CX Side



99995CX Back

Flat-Magnet, Square Piezo Speakers

- Excellent for alarms or other voice uses
- Stainless steel diaphragm

| Part Number | Mfr. Cross Ref. No. | Dimensions (Dia. " x D") | Input | | Impedance (Ω) | Output SPL (dB) | Frequency Range (Hz) | Magnet Size (Dia. " x H") | Pricing | | |
|-------------|---------------------|--------------------------|---------|---------|---------------|-----------------|----------------------|---------------------------|---------|--------|--------|
| | | | Nom (W) | Max (W) | | | | | 1 | 10 | 100 |
| 34024CX | AZ30S | 1.2 x 0.2 | 0.4 | 0.8 | 8 | 70 | 1300 – 8000 | 1.2 x 0.1 | \$1.69 | \$1.52 | \$1.35 |
| 76030CX | AZ40S | 1.6 x 0.2 | 0.4 | 0.8 | 8 | 70 | 600 – 6000 | 1.6 x 0.1 | 1.95 | 1.75 | 1.49 |



34024CX Side



34024CX Back

Alnico Speakers

- For computer case use
- Pre-tinned solder lugs
- Paper diaphragm
- Large magnet
- Wide frequency response
- Impedance: 8Ω

Quantity **SAVE**

| Part Number | Mfr. Cross Ref. No. | Fig. | Dimensions (Dia. " x D") | Input | | Output SPL (dB) | Frequency Range (Hz) | Magnet Size (Dia. " x H") | Pricing | | |
|-------------|---------------------|------|--------------------------|---------|---------|-----------------|----------------------|---------------------------|---------|--------|--------|
| | | | | Nom (W) | Max (W) | | | | 1 | 10 | 100 |
| 88410CX | A0200 | 1 | 2.0 x 0.8 | 0.2 | 0.4 | 87 | 430 – 4500 | 0.5 x 0.4 | \$1.49 | \$1.29 | \$1.19 |
| 135765CX | A0201C | 1 | 2.2 x 0.8 | 0.3 | 0.5 | 87 | 400 – 4000 | 0.5 x 0.4 | 1.59 | 1.35 | .99 |
| 111587CX | B0102 | 2 | 1.7 x 0.6 | 0.1 | 0.3 | 83 | 500 – 5500 | 0.5 x 0.4 | 2.09 | 1.69 | 1.39 |
| 135811CX | A1527C02 | 3 | 1.6 x 2.8 x 1.2 | 2.0 | 5.0 | 82 | 450 – 20000 | 0.5 x 0.5 | 2.95 | 2.49 | 2.25 |



Fig. 1

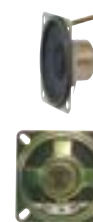


Fig. 2



Fig. 3

Microphone Cartridges

Omni-directional Electret Condenser Microphone Cartridges

Applications:

- Tape recorders, intercoms, hearing aids, telephone and answering devices, sonic controlled toys and sensors
- Modems for computers
- Used for recording, testing, and monitoring



116505CX



160979CX



136573CX



196488CX



140986CX

| Part No. | Type | Sensitivity | Impedance | Frequency (Hz) | Max. Op. Volt. (VDC) | Stand Op. Volt. (VDC) | Current (Max.) | Sensitivity Reduction | S/N Ratio | Terminals | Size (H x Dia.) | Pricing | | | |
|----------|----------|-------------|-----------|----------------|----------------------|-----------------------|----------------|-----------------------|-----------|--------------|-----------------|---------|--------|--------|--------|
| | | | | | | | | | | | | 1 | 10 | 100 | 1000 |
| 116505CX | WM-54PC | -44 ±2dB | >2.2kΩ | 20-16,000 | 10V | 2.5V | 0.6mA | -3dB @ 2V | >60dB | PC pin leads | .20" x .38" | \$.69 | \$.62 | \$.50 | \$.33 |
| 160979CX | WM-64PKT | -44 ±3dB | >2.2kΩ | 20-16,000 | 10V | 2.0V | 0.5mA | -3dB @ 1.5V | >58dB | PC pin leads | .10" x .24" | .72 | .65 | .52 | .35 |
| 136573CX | WM-60PC | -54 ±2dB | >2.2kΩ | 20-12,000 | 12V | 4.5V | 0.5mA | -3dB @ 3V | >40dB | PC pin leads | .30" x .38" | .53 | .48 | .43 | .39 |
| 196488CX | JL-061C | -58 0dB | 2kΩ | 20-20,000 | 10V | 2.0V | 0.04mA | -3dB @ 1.5V | >55dB | Solder pad | .10" x .24" | 1.29 | .99 | .89 | .79 |
| 140986CX | CRM919 | -64 ±3dB | 1kΩ ±30% | 20-10,000 | 12V | 3.0V | 0.8mA | -3dB @ 3V | >40dB | Lead wires | .90" x .39" | 1.49 | 1.14 | 1.05 | .89 |

Bzzzers and Sonic Transducers

Quantity
SAVE SALE

Magnetic Transducers

• Applied voltage: 1/2 duty, square wave

| Part Number | Fig. | Operating Volt. (Vp-p/mA) | Voltage Range (Vp-p) | Frequency (Hz) | Sound (dB) | Dimensions | Pricing | | | |
|-------------|------|---------------------------|----------------------|----------------|------------|-----------------------|-------------------|--------|--------|-------------------|
| | | | | | | | 1 | 10 | 100 | 1000 |
| 138721CX | 1 | 1.5/10 | 1 - 2 | 2048 | 80 | .32"H x .46"Dia. | \$1.49 | \$1.35 | \$1.09 | \$1.79 |
| 207917CX | 2 | 1.5/30 | 1 - 2 | 2048 | 75 | .22"H x .47"Dia. | 1.45 | 1.16 | .87 | .61 |
| 207925CX | 3 | 1.5/70 | 1 - 2 | 2048 | 80 | .50"L x .50"W x .30"H | .56 | .51 | .46 | .42 |
| 207941CX | 4 | 1.5/80 | 1 - 2 | 2731 | 80 | .28"H x .38"Dia. | \$1.68 | .62 | .57 | .51 |
| 207968CX | 5 | 1.5/80 | 1 - 2 | 2731 | 80 | .22"H x .35"Dia. | .65 | .59 | .54 | .49 |
| 207909CX | 2 | 3.6/40 | 1 - 4 | 1980 | 70 | .22"H x .47"Dia. | .99 | .84 | .69 | .53 |
| 138739CX | 1 | 5/40 | 3 - 8 | 2400 | 85 | .35"H x .42"Dia. | 1.49 | 1.29 | .99 | .89 |
| 106500CX | 1 | 5/40 | 3 - 8 | 2400 | 85 | .40"H x .48"Dia. | 1.49 | 1.29 | .99 | .79 |
| 207933CX | 4 | 5/100 | 4 - 8 | 3100 | 85 | .28"H x .38"Dia. | .66 | .60 | .55 | .50 |
| 207950CX | 5 | 5/100 | 4 - 8 | 3100 | 85 | .22"H x .35"Dia. | .81 | .74 | .67 | .61 |

Magnetic Buzzers

| Part Number | Fig. | Operating Volt. (VDC/mA) | Voltage Range (VDC) | Frequency (Hz) | Sound (dB) | Dimensions | Pricing | | | |
|-------------|------|--------------------------|---------------------|----------------|------------|------------------|---------|--------|--------|--------|
| | | | | | | | 1 | 10 | 100 | 1000 |
| 207984CX | 6 | 1.5/30 | 1.25 - 2 | 2300 | 75 | .47"H x .38"Dia. | \$2.99 | \$2.69 | \$2.45 | \$2.15 |
| 76064CX | 6 | 5/30 | 4 - 7 | 2300 | 85 | .35"H x .46"Dia. | 2.99 | 2.69 | 2.45 | 2.19 |
| 207976CX | 6 | 12/30 | 8 - 15 | 2300 | 85 | .47"H x .38"Dia. | 2.49 | 2.19 | 1.99 | 1.69 |

Piezo Buzzers

| Part Number | Fig. | Operating Volt. (VDC/mA) | Voltage Range (VDC) | Frequency (Hz) | Sound (dB) | Dimensions | Pricing | | | |
|-------------|------|--------------------------|---------------------|----------------|------------|-----------------------|---------|--------|--------|-----------------|
| | | | | | | | 1 | 10 | 100 | 1000 |
| 206295CX | 6 | 12/6 | 3 - 20 | 2900 | 95 | .63"H x .92"Dia. | \$2.49 | \$2.25 | \$1.95 | \$1.75 |
| 196357CX | 6 | 12/5.8 | 3 - 16 | 4000 | 86 | .30"H x .54"Dia. | 2.69 | 2.45 | 1.95 | 1.45 |
| 138712CX | 6 | 12/7 | 3 - 16 | 4000 | 80 | .30"H x .54"Dia. | 2.49 | 2.25 | 1.79 | 1.35 |
| 207896CX | 7* | 12/120 | 6 - 15 | 2600/3100 | 105 | 3.4"L x 2.2"W x 1.3"H | 7.95 | 7.15 | 5.75 | 4.29 |
| 207888CX | 7† | 12/120 | 9 - 15 | 1500-3100 | 105 | 3.4"L x 2.2"W x 1.3"H | 5.78 | 5.25 | 4.78 | 4.34 |
| 207992CX | 8 | 12/250 | 6 - 16 | 3500 | 105 | 2.3"L x 1.8"W x 1.6"H | 6.95 | 6.29 | 5.65 | 5.09 |
| 32601CX | 9 | 24/15 | 1 - 28 | 2900 | 95 | 1.4"H x 1.7"Dia. | 4.95 | 4.45 | 3.95 | 3.59 |
| 123537CX | 9* | 24/20 | 4 - 28 | 2900 | 80 | 1.4"H x 1.7"Dia. | 4.19 | 3.79 | 3.39 | 2.95 |
| 76021CX | 10 | 24/20 | 1.5 - 28 | 3200 | 95 | 1.0"H x 1.1"Dia. | 4.99 | 4.49 | 3.99 | 3.49 |

* Dual tone † Siren

Mechanical/ElectroMechanical Buzzers

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|--|--------|--------|--------|--------|
| | | | | | |
| 24871CX | 11 9/30 6 - 12 400 75 1.3"L x 0.7"W x 0.6"H | \$2.49 | \$1.99 | \$1.79 | \$1.79 |
| 105822CX | 12 9/220 — 500 80 1.3"H x 2.0"Dia. | 1.39 | 1.25 | 1.15 | .91 |
| 140695CX | 11 12/25 9 - 15 400 75 1.3"L x 0.7"W x 0.6"H | 1.79 | 1.59 | 1.49 | 1.29 |



110VAC Piezo Buzzer

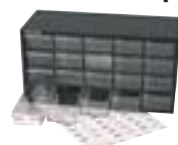
- Sound pressure level: 90dB
- Output tone: pulse • 6" lead wires
- Operating range: 60-150VAC
- Current drain: 20mA
- Fits 1.125" diameter opening
- Size: 1.3"H x 1.7"Dia.

Includes: Mounting nut

| Part No. | Product No. | 1 | 10 | 100 |
|----------|---------------------|--------|--------|--------|
| 184743CX | FM-110A-903AL | \$3.19 | \$2.99 | \$2.69 |

Component Cabinet, Boxes and Drawers

Component Cabinet



81701CX



Drawer (85454CX) Divider (85446CX)

- Drawer can be divided into 4 sections (clear)
- Wall mountable cabinet (ABS black)
- Cabinet size: 6.0"D x 15"W x 7.9"H • Wt.: 4.7 lbs.
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Divider size: 2.4"L x 1.1"H

Includes: 20 clear plastic drawers, 20 dividers and 30 adhesive I.D. labels

* Prepackaged: order in increments of 10 or 50

| Part No. | Description | 1 | 10 | 50 |
|----------|---------------------------|---------|---------|---------|
| 81701CX | Component cabinet | \$15.95 | \$13.95 | \$12.49 |
| 85454CX | Drawer for cabinet | .39 | .35 | .29 |
| 85446CX | Divider for cabinet | *.19 | .17 | |

Plastic Fliptop Boxes

- Clear plastic box with a clear plastic lid and removable dividers
- 100255CX: Size: 8.4"L x 4.5"W x 1.4"H • 18 compartments (1.4" x 1.5" each)
- 148902CX: Size: 10.2"L x 4.7"W x 1.6"H • 12 compartments (1.7" x 2.3" each)



100255CX

| Part No. | Description | 1 | 10 | 100 |
|----------|-----------------------|--------|--------|--------|
| 100255CX | 18 compartments | \$2.25 | \$1.95 | \$1.75 |
| 148902CX | 12 compartments | 3.95 | 3.49 | 2.95 |

Plastic Fliptop Box

Double-Sided Box

- Unique double-sided design allows box to be opened from both top and bottom
- Size: 6.5"L x 4.0"W x 1.5"H



| Part No. | Description | 1 | 10 | 100 |
|----------|------------------------|--------|--------|--------|
| 148865CX | Double sided box | \$1.88 | \$1.71 | \$1.55 |

Plastic Fliptop Case for SMDs

128 Compartments for Surface Mount Components

- 8 rows x 16 columns grid
- Flip top openings on each bin
- Padded cover locks bins closed
- Perfect match to store P/N 156881CX SMD resistor assortment, pg 44
- Size: 11.0"L x 8.3"W x 1.7"Thick
- Weight: 1.4 lbs. • Color: gray



Includes: Labels for each bin

| Part No. | Description | 1 | 10 |
|----------|------------------------|---------|---------|
| 164267CX | SMD fliptop case | \$49.95 | \$44.99 |

Stackable Drawers

- Case size: 4.5"L x 4.4"W x 2.3"H
- Drawer size: 4.4"L x 4.0"W x 0.9"H
- Color: blue/white



| Part No. | Description | 1 | 10 | 100 |
|----------|--------------------|--------|--------|--------|
| 11906CX | Case/drawers | \$1.83 | \$1.66 | \$1.51 |

Bug Boxes

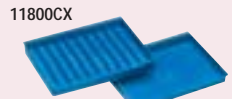
- Anti-static plastic
- Fits in bug cage (P/N 11332CX, below)
- 11341CX: stores sixty 8-pin or thirty 16-pin DIPs
- 11375CX: Designed to store all types of components
- Box size: 4.9"L x 3.3"W x 0.6"H



| Part No. | Description | 1 | 10 | 100 |
|----------|---|--------|--------|--------|
| 11341CX | 30 compartments | \$3.95 | \$3.49 | \$3.15 |
| 11375CX | 3 compartment/6 vertical & 6 horizontal dividers .. | 3.95 | 3.56 | 3.20 |

Bug Trays

- Fits in bug cage (P/N 11332CX, below)
- 11826CX Open: 1 compartment 4.6"L x 3.2"W x 0.4"H
- 11800CX Divided: 10 compartments 3.2"L x 0.4"W x 0.4"H ea.
- Tray size: 4.8"L x 3.6"W x 0.5"H



| Part No. | Description | 1 | 10 | 100 |
|----------|------------------------|--------|--------|--------|
| 11826CX | Open bug tray | \$2.29 | \$2.05 | \$1.89 |
| 11800CX | Divided bug tray | 3.19 | 2.87 | 2.58 |

Bug Cage

- Holds bug boxes or trays
- Modular and interlocking
- Color: blue • Weight: 0.7 lbs.
- Case size: 5.0"L x 3.9"W x 5.1"H Boxes/Trays not included



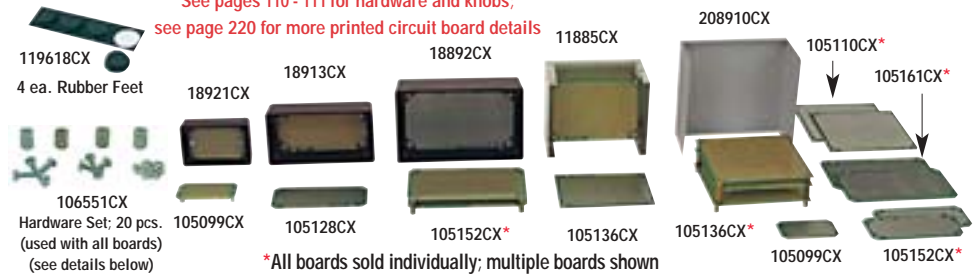
| Part No. | Description | 1 | 10 | 100 |
|----------|----------------|--------|--------|--------|
| 11332CX | Bug cage | \$7.49 | \$6.74 | \$6.07 |

Prototype Builder Boards, Enclosures and Hardware

Call for additional OEM pricing.

The prototype builder boards on this page are specifically designed to fit into our ABS speedy boxes, die cast aluminum enclosures, aluminum boxes, metal cabinets and heavy-duty instrument cases shown in each grouping. These pre-cut boards have 2 or 4 mounting holes compatible with the PC board mounting hardware listed at the bottom, right (P/N 106551CX).

Board description: laminated glass epoxy 1/16" thick fire retardant per FR-4 specs. Copper-clad and solder mask one side. Drilled holes: .035" diameter on .080" square pad. Pads spaced on .10" x .10" grid.



ABS Speedy Enclosures

Will not crack or split when drilled or punched. PCB mounting slots on all four sides. Lid has a lip for precision fit (adds 0.4" height). Complete with four screws and lid. All sizes below are for interior dimensions. • Color: black • ABS plastic



| Part No. | Product No. | Size (L x W x D) | Wt. (lbs.) | 1 | 10 | 50 | 100 |
|----------|-------------|--------------------|------------|--------|--------|--------|--------|
| 18921CX | H2855 | 3.1" x 2.0" x 0.9" | 0.1 | \$3.15 | \$2.84 | \$2.55 | \$2.30 |
| 18913CX | H2853 | 4.9" x 2.5" x 1.5" | 0.2 | 3.69 | 3.32 | 2.99 | 2.69 |
| 18892CX | H2851 | 6.0" x 3.5" x 1.9" | 0.4 | 4.79 | 4.31 | 3.88 | 3.49 |
| 18905CX | H2852 | 7.5" x 4.3" x 2.3" | 0.5 | 6.89 | 6.20 | 5.58 | 5.02 |

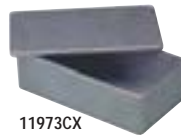
Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus with pad per hole (*except P/N 105099CX) • Plated one side holes

| Part No. | Product No. | Size (L x W) | No. of Holes | 1 | 10 | 50 | 100 |
|-----------|-------------|--------------|--------------|--------|--------|--------|--------|
| 105099CX* | 2855PCB | 2.7" x 1.6" | 288 | \$5.25 | \$4.73 | \$4.25 | \$3.83 |
| 105128CX | 2853PCB | 4.4" x 2.0" | 669 | 7.95 | 6.95 | 6.25 | 5.59 |
| 105152CX | 2851PCB | 5.5" x 3.1" | 1450 | 9.95 | 8.95 | 7.95 | 6.95 |
| 105161CX | 2852PCB | 7.0" x 3.6" | 2225 | 14.95 | 13.45 | 11.95 | 10.95 |

Die-Cast Aluminum Enclosures

High-quality die-cast aluminum cases come with channelled walls for easy PCB mounting. Ideal for RF circuits because the lid forms an effective screen against RFI interference. Made from aluminum, an excellent heat-sink, these cases are great for high temp circuits (up to 600°C). Complete with screws.



| Part No. | Product No. | Size (L x W x D) | Wt. (lbs.) | 1 | 10 | 50 | 100 |
|----------|-------------|--------------------|------------|--------|--------|--------|--------|
| 11957CX | B5002 | 3.9" x 2.0" x 1.0" | 0.2 | \$5.95 | \$5.39 | \$4.85 | \$4.35 |
| 11965CX | B5004 | 4.7" x 2.4" x 1.6" | 0.4 | 8.49 | 7.64 | 6.88 | 6.19 |
| 11973CX | B5006 | 7.5" x 4.3" x 2.4" | 1.2 | 13.95 | 12.56 | 11.30 | 10.17 |

Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus with pad per hole • Plated one side holes

| Part No. | Product No. | Size (L x W) | No. of Holes | 1 | 10 | 50 | 100 |
|----------|-------------|--------------|--------------|--------|--------|--------|--------|
| 105101CX | 5002PCB | 3.5" x 1.5" | 365 | \$6.95 | \$6.25 | \$5.59 | \$4.95 |
| 105128CX | 2853PCB | 4.4" x 2.0" | 669 | 7.95 | 6.95 | 6.25 | 5.59 |
| 105161CX | 2852PCB | 7.0" x 3.6" | 2225 | 14.95 | 13.45 | 11.95 | 10.95 |

Aluminum Enclosures

Ideal boxes for those projects that get left lying around! Put them in an economical aluminum enclosure. The enclosure comes in two pieces which slide together.



| Part No. | Product No. | Size (L x W x D) | Wt. (lbs.) | 1 | 10 | 50 | 100 |
|----------|-------------|--------------------|------------|--------|--------|--------|--------|
| 11869CX | B2300 | 4.0" x 2.0" x 2.8" | 0.2 | \$5.45 | \$4.69 | \$4.22 | \$3.79 |
| 11885CX | B2320 | 5.0" x 4.0" x 3.0" | 0.4 | 7.89 | 6.15 | 5.55 | 4.99 |
| 11893CX | B2335 | 7.0" x 6.2" x 4.6" | 0.8 | 10.95 | 9.25 | 8.29 | 7.49 |

Printed Circuit Boards for Above Enclosures

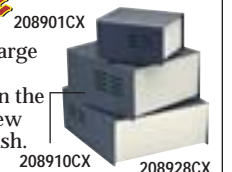
• Power/ground, perimeter bus w/ pad per hole • Ground Bus • Plated one side holes

| Part No. | Product No. | Size (L x W) | No. of Holes | 1 | 10 | 50 | 100 |
|----------|-------------|--------------|--------------|--------|--------|--------|--------|
| 105110CX | 2300PCB | 3.4" x 2.4" | 637 | \$7.95 | \$6.95 | \$6.25 | \$5.59 |
| 105136CX | 2320PCB | 4.5" x 3.3" | 1266 | 9.95 | 8.95 | 7.95 | 6.95 |
| 105179CX | 2335PCB | 6.5" x 5.0" | 2829 | 14.95 | 13.49 | 11.95 | 10.95 |

Metal Enclosures

SALE

High-quality metal enclosures are made to suit a large variety of electronics projects and applications. The base is made of aluminum. Slots are located on the sides of the cases for maximum cooling. Cases screw together and come with an attractive two-tone finish.



- Mounting screws and rubber feet included
- Glossy black textured steel top cover and ivory aluminum base

| Part No. | Product No. | Size (L x W x D) | Wt. (lbs.) | 1 | 10 | 50 | 100 |
|----------|-------------|--------------------|------------|--------|--------|--------|--------|
| 208901CX | B2741A | 4.0" x 3.3" x 2.2" | 0.4 | \$6.49 | \$5.89 | \$5.29 | \$4.69 |
| 208910CX | B2743A | 5.9" x 5.3" x 3.0" | 0.8 | 7.99 | 7.19 | 6.49 | 5.89 |
| 208928CX | B2744A | 7.3" x 6.3" x 2.8" | 1.1 | 8.99 | 7.99 | 7.19 | 6.49 |
| 209349CX | B2746A | 6.3" x 7.8" x 2.5" | 0.9 | 12.35 | 11.12 | 9.99 | 8.99 |
| 209357CX | B2747A | 7.5" x 9.8" x 3.2" | 1.4 | 14.99 | 13.49 | 12.19 | 10.99 |

Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus with pad per hole • Plated one side holes

| Part No. | Product No. | Size (L x W) | No. of Holes | 1 | 10 | 50 | 100 |
|----------|-------------|--------------|--------------|--------|--------|--------|--------|
| 105110CX | 230APCB | 3.4" x 2.4" | 637 | \$7.95 | \$6.95 | \$6.25 | \$5.59 |
| 206578CX | 2743APCB | 4.6" x 4.3" | 1684 | 7.49 | 6.74 | 6.07 | 5.46 |
| 206586CX | 2746APCB | 4.3" x 6.8" | 2550 | 10.95 | 9.86 | 8.87 | 7.98 |
| 206594CX | 2747APCB | 5.5" x 8.0" | 3906 | 14.99 | 13.49 | 12.14 | 10.93 |
| 105179CX | 2505PCB | 6.5" x 5.0" | 2829 | 14.95 | 13.49 | 11.95 | 10.95 |

Heavy-Duty Instrument Cases

Both cases split apart for ease of working. Four plastic feet molded on unit. P/N 18876CX includes ventilation and speaker sound slots. • Color: gray



| Part No. | Product No. | Size (L x W x D) | Wt. (lbs.) | 1 | 10 | 50 | 100 |
|----------|-------------|---------------------|------------|--------|--------|--------|--------|
| 18868CX | H2505 | 7.9" x 6.3" x 2.5" | 0.8 | \$7.89 | \$7.10 | \$6.39 | \$5.75 |
| 18876CX | H2507 | 10.0" x 7.5" x 3.1" | 1.4 | 8.99 | 7.99 | 7.28 | 6.55 |

Printed Circuit Boards for Above Instrument Cases

• Power/ground, perimeter bus with pad per hole • Plated one side holes

| Part No. | Product No. | Size (L x W) | No. of Holes | 1 | 10 | 50 | 100 |
|----------|-------------|--------------|--------------|---------|---------|---------|---------|
| 105179CX | 2505PCB | 6.5" x 5.0" | 2829 | \$14.95 | \$13.49 | \$11.95 | \$10.95 |
| 105187CX | 2507PCB | 8.8" x 6.1" | 4771 | 29.95 | 26.95 | 23.95 | 21.95 |

ABS Enclosures w/ Clear Tops

Made of gray ABS plastic w/ clear polycarbonate top cover. Includes screws for mounting boards or electronic components, rubber gasket for a tight seal on your equipment & drilled holes for mounting.



| Part No. | Product No. | Size (L x W x D) | Wt. (lbs.) | 1 | 10 | 50 | 100 |
|----------|-------------|--------------------|------------|--------|--------|--------|--------|
| 141831CX | 203C1 | 4.6" x 3.2" x 1.8" | 0.3 | \$8.95 | \$8.09 | \$7.25 | \$6.55 |
| 141840CX | 203D1 | 6.3" x 3.2" x 1.8" | 0.4 | 9.95 | 8.99 | 8.09 | 7.25 |
| 141858CX | 203F1 | 7.0" x 5.5" x 2.5" | 0.8 | 11.95 | 10.79 | 9.69 | 8.69 |

Mounting Hardware for PC Boards

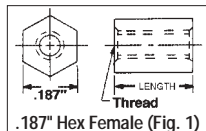
• 4 spacers, 8 screws and 8 washers

| Part No. | Description | 1 | 10 | 50 | 100 |
|----------|----------------------------|--------|--------|--------|--------|
| 106551CX | PC board mounting hardware | \$1.79 | \$1.65 | \$1.45 | \$1.35 |

Find more products online at www.Jameco.com

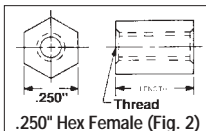
Hex
.187\"/>

Aluminum & Brass Threaded Standoffs

† Finish: Iridite (clear)¹ per MIL-C-5541-D;
bright tin plate²; stainless steel³Hex
.250\"/>

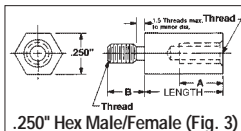
.187\"/>

4-40 Thread (Fig. 1) .187\"/>



.250\"/>

4-40 Thread (Fig. 3) (Thread A: .250\"/>



.250\"/>

Quantity
SAVEQuantity
SAVE* Prepackaged: order in
increments of 10, 100 or 1000

| Part Number | Metal† | Hex Length | Pricing | | | |
|-------------|--------------------|------------|---------|-----|---------------|--|
| | | | 10 | 100 | 1000 | |
| 175636CX | Brass ² | .187" | .15 | .13 | \$.096 | |
| 102795CX | Brass ² | .240" | .21 | .15 | .10 | |
| 133612CX | Alum ¹ | .250" | .20 | .12 | \$.09 | |
| 133639CX | Alum ¹ | .500" | .22 | .20 | .11 | |
| 139791CX | Alum ¹ | .562" | .18 | .15 | .13 | |
| 133647CX | Alum ¹ | .625" | .14 | .13 | .11 | |
| 133655CX | Alum ¹ | .750" | .39 | .23 | .14 | |
| 139184CX | Alum ¹ | 1.000" | .39 | .32 | .27 | |

.250\"/>

4-40 Thread (Fig. 2) .250\"/>

* Prepackaged: order in
increments of 10, 100 or 1000

| Part Number | Metal† | Hex Length | Pricing | | | |
|-------------|-------------------|------------|---------|-----|-----|------|
| | | | 1 | 10 | 100 | 1000 |
| 139192CX | Alum ¹ | .250" | * | .16 | .12 | .08 |
| 77500CX | Alum ¹ | .375" | * | .20 | .15 | .09 |
| 134762CX | Alum ¹ | .437" | * | .21 | .18 | .15 |
| 108370CX | Alum ¹ | .500" | * | .25 | .17 | .10 |
| 77518CX | Alum ¹ | .625" | .42 | .35 | .19 | .14 |
| 133604CX | Alum ¹ | .750" | .39 | .35 | .19 | .14 |
| 139205CX | Alum ¹ | 1.000" | .49 | .35 | .25 | .15 |

.250\"/>

6-32 Thread (Fig. 2) .250\"/>

* Prepackaged: order in
increments of 10, 100 or 1000

| Part Number | Metal† | Hex Length | Pricing | | | |
|-------------|-------------------|------------|---------|-----|-----|------|
| | | | 1 | 10 | 100 | 1000 |
| 77534CX | Alum ¹ | .250" | * | .22 | .14 | .08 |
| 133591CX | Alum ¹ | .375" | .32 | .29 | .13 | .09 |
| 77542CX | Alum ¹ | .500" | * | .22 | .17 | .10 |
| 77551CX | Alum ¹ | .625" | * | .25 | .19 | .14 |
| 77569CX | Alum ¹ | .750" | .31 | .28 | .21 | .13 |
| 77577CX | Alum ¹ | 1.000" | .59 | .35 | .30 | .16 |
| 143407CX | Alum ¹ | 1.500" | .69 | .61 | .49 | .42 |
| 143440CX | Alum ¹ | 1.750" | .79 | .59 | .48 | .41 |

| Part Number | Metal† | Hex Length | Pricing | | | |
|-------------|--------------------|------------|---------|-----|-----|--------------|
| | | | 1 | 10 | 100 | 1000 |
| 77585CX | Alum ¹ | .250" | .41 | .37 | .17 | \$.11 |
| 77593CX | Alum ¹ | .375" | .43 | .34 | .19 | .12 |
| 111755CX | Alum ¹ | .500" | .49 | .44 | .36 | .20 |
| 175628CX | Steel ³ | .580" | * | .19 | .14 | .12 |
| 139213CX | Alum ¹ | .625" | .43 | .39 | .35 | .31 |
| 139221CX | Alum ¹ | .750" | .43 | .39 | .35 | .21 |
| 139230CX | Alum ¹ | 1.00" | .49 | .44 | .36 | .30 |
| 128565CX | Alum ¹ | 1.25" | .59 | .53 | .44 | .38 |
| 166545CX | Alum ¹ | 1.50" | .75 | .65 | .59 | .49 |

.250\"/>

6-32 Thread (Fig. 3) (Thread A: .375\"/>

10 piece minimum

| Part Number | Metal† | Hex Length | Pricing | | |
|-------------|--------------------|------------|---------|-----|------|
| | | | 10 | 100 | 1000 |
| 133541CX | Alum ¹ | .250" | .35 | .21 | .12 |
| 133567CX | Alum ¹ | .375" | .35 | .22 | .12 |
| 77606CX | Alum ¹ | .500" | .29 | .23 | .12 |
| 77622CX | Alum ¹ | .750" | .35 | .28 | .15 |
| 77649CX | Alum ¹ | 1.000" | .40 | .32 | .17 |
| 206623CX | Steel ³ | 1.250" | .40 | .36 | .32 |

RAF Instrumentation Handles

- 5/8" oval diameter
- 9/32" thick
- 10-32 internal thread size

211158CX:

- Color: black
- Base metal: aluminum

216821CX:

- Color: nickel plate
- Base metal: brass

SALE

Quantity
SAVE

211158CX



216821CX

| Part No. | Size (L" x H") | 1 | 10 | 100 |
|----------|----------------|--------|--------|---------------|
| 211158CX | 3.0 x 1.8 | \$2.95 | \$2.35 | \$1.95 |
| 216821CX | 3.0 x 1.3 | 2.95 | 2.25 | 1.69 |

SAE Hardware

- Zinc-plated steel

Prepackaged: order in increments of 100 or 1000

| Slotted Pan Head Machine Screws | | | | | |
|---------------------------------|------------|--------|-----------------|-------------------|--------|
| Part Number | Screw Size | Thread | Length (inches) | 100 piece minimum | |
| | | | | 100 | 1000 |
| 38172CX | 2-56 | Std | .250 | \$.025 | \$.022 |
| 40951CX | 4-40 | Std | .250 | .019 | .011 |
| 40969CX | 4-40 | Std | .375 | .017 | .012 |
| 106809CX | 4-40 | Std | .500 | .018 | .013 |
| 106542CX | 6-32 | Std | .250 | .018 | .013 |
| 42446CX | 6-32 | Std | .375 | .019 | .014 |
| 42438CX | 6-32 | Std | .500 | .019 | .015 |
| 106796CX | 8-32 | Std | .500 | .04 | .025 |

| Hex Nuts | | | | | |
|-------------|------------|--------|---------------|-------------------|--------|
| Part Number | Screw Size | Thread | Dia. (inches) | 100 piece minimum | |
| | | | | 100 | 1000 |
| 38164CX | 2-56 | Std | .183 | \$.022 | \$.014 |
| 211123CX | 4-40 | Sm | .184 | .023 | .011 |
| 40942CX | 4-40 | Std | .243 | .025 | .013 |
| 42420CX | 6-32 | Std | .306 | .023 | .014 |
| 51553CX | 8-32 | Std | .334 | .02 | .014 |

| Flat Washers | | | | | |
|--------------|------------|---------------|-------------------|---------------|--|
| Part Number | Screw Size | Dia. (inches) | 100 piece minimum | | |
| | | | 100 | 1000 | |
| 211131CX | 4 | .237 | \$.019 | \$.015 | |
| 106825CX | 4 | .281 | .022 | .019 | |
| 106833CX | 6 | .373 | .022 | .019 | |
| 106841CX | 8 | .377 | .04 | .025 | |

| Internal Tooth Lock Washers | | | | | |
|-----------------------------|------------|---------------|-------------------|--------|--|
| Part Number | Screw Size | Dia. (inches) | 100 piece minimum | | |
| | | | 100 | 1000 | |
| 106850CX | 4 | .258 | \$.018 | \$.015 | |
| 106868CX | 6 | .277 | .018 | .015 | |
| 106876CX | 8 | .323 | .016 | .015 | |

| Split Lock Washers | | | | | |
|--------------------|------------|---------------|-------------------|--------|--|
| Part Number | Screw Size | Dia. (inches) | 100 piece minimum | | |
| | | | 100 | 1000 | |
| 106788CX | 2 | .161 | \$.024 | \$.016 | |
| 211140CX | 4 | .201 | .02 | .015 | |
| 40977CX | 4 | .242 | .02 | .015 | |
| 42462CX | 6 | .240 | .011 | .009 | |
| 51609CX | 8 | .279 | .012 | .006 | |

Hardware and Spacer Assortment Kit

Includes 2300 pcs. (23 types) Spacers, Nuts, Flat, Tooth & Lock Washers and Slotted PH Screws

| 100 ea | 100 ea | 100 ea | 100 ea | 100 ea | 100 ea |
|----------|------------------------|--------|--------|------------|-----------------|
| Spacers | Hex | Flat | T/Lock | S/Lock | PH screws |
| — | 2-56 | — | — | #2 | 2-56 x 1/4, — |
| 4-40 | 4-40 | #4 | #4 | #4 | 4-40 x 1/4, 1/2 |
| 6-32 | 6-32 | #6 | #6 | #6 | 6-32 x 1/4, 1/2 |
| 8-32 | 8-32 | #8 | #8 | #8 | 8-32 x 1/2, — |
| Part No. | Description | | | Wt. (lbs.) | 1 10 |
| 108433CX | 2300 pcs. hardware kit | | | 7.5 ... | \$55.95 \$50.36 |
| 130497CX | Refill for 108433CX | | | 2.7 ... | 39.95 35.95 |

3M Adhesive Rubber Feet

These are perfect for project boxes, providing a non-slip, non-scratch surface.

119618CX



126981CX



Fig. 1



Fig. 2



Fig. 3



Fig. 4

| Part No. | Product No. | Type | Fig. | Pack | (W" x H") | 1 | 10 | 50 |
|----------|-------------|-------------------|------|------|-----------|-------|-------|-------|
| 119618CX | SJ5012BLK4 | Black cylindrical | 1 | 4 | .50 x .14 | \$.39 | \$.28 | \$.26 |
| 142658CX | SJ5012BLKC | Black cylindrical | 1 | 100 | .50 x .14 | 5.95 | 5.35 | 4.79 |
| 142771CX | SJ5008BLKC | Black square | 2 | 100 | .50 x .12 | 6.69 | 4.76 | 3.40 |
| 142682CX | SJ5018BLKC | Black square | 3 | 100 | .50 x .23 | 9.95 | 8.25 | 5.39 |
| 126981CX | SJ5023BLK4 | Black square | 4 | 4 | .81 x .30 | 1.95 | 1.75 | 1.59 |
| 142666CX | SJ5023BLKC | Black square | 4 | 100 | .81 x .30 | 14.25 | 9.10 | 8.69 |

PCB Standoff Mounting Hardware

- Snap "on"
 - Nylon
- 28337CX: 1.2"L x 0.6"W for 0.2" holes
129251CX: 0.9"L x 0.4"Dia. for 0.2"/0.3" holes
148056CX: 0.8"L x 0.5"W for 0.1"/0.2" holes
156831CX: 0.68"L x 0.32"Dia for 0.140" holes

- 10 piece minimum

| Part No. | Mfr. Cross Ref. No. | 10 | 100 | 1000 |
|----------|---------------------|-------|-------|------------|
| 28337CX | PCST | \$.12 | \$.07 | \$.04 |
| 129251CX | PCST2 | .18 | .11 | .075 |
| 148056CX | PCST3 | .09 | .08 | .06 |
| 156831CX | KCS10 | .125 | .093 | .063 |

Quantity
SAVE

28337CX

129251CX



148056CX

156831CX

Color Instrumentation Knobs (1/4" Shaft Diameters)

- JK-907 series: pressure fit type, top set screw; JK-905 series: side set screw
- CR-MS series for knurled shaft



| Part No. | Product No. | Body Color | Pointer Color | Size (H" x Dia.) | 1 | 10 | 100 |
|----------|-------------------|--------------|---------------|------------------|-------|-------|-------|
| 264823CX | CPBTAA191A1S6.4BK | Black/Black | White | .79 x .77 | \$.99 | \$.93 | \$.88 |
| 264786CX | CPBTAA191A1S6.4RD | Black/Red | White | .79 x .77 | .99 | .93 | .88 |
| 264794CX | CPBTAA191A1S6.4YW | Black/Yellow | White | .79 x .77 | .99 | .93 | .88 |
| 264807CX | CPBTAA191A1S6.4BL | Black/Blue | White | .79 x .77 | .99 | .93 | .88 |
| 264815CX | CPBTAA191A1S6.4GN | Black/Green | White | .79 x .77 | .99 | .93 | .88 |
| 264831CX | CPBTAA191A1S6.4GY | Black/Grey | White | .79 x .77 | .99 | .93 | .88 |
| 265156CX | JK-907A-BL | Grey/Blue | Blue | .76 x 1.27 | 1.99 | 1.87 | 1.78 |
| 265130CX | JK-907A-RD | Grey/Red | Red | .76 x 1.27 | 1.99 | 1.87 | 1.78 |
| 265148CX | JK-907A-YW | Grey/Yellow | Yellow | .76 x 1.27 | 1.99 | 1.87 | 1.78 |
| 265181CX | JK-907B-BL | Grey/Blue | Blue | .86 x .94 | 1.99 | 1.87 | 1.78 |
| 265172CX | JK-907B-YW | Grey/Yellow | Yellow | .86 x .94 | 1.99 | 1.87 | 1.78 |
| 265164CX | JK-907B-RD | Grey/Red | Red | .86 x .94 | 1.99 | 1.87 | 1.78 |
| 265199CX | JK-907C-RD | Grey/Red | Red | .72 x .68 | 1.99 | 1.87 | 1.69 |
| 265201CX | JK-907C-YW | Grey/Yellow | Yellow | .72 x .68 | 1.99 | 1.87 | 1.78 |
| 265210CX | JK-907C-BL | Grey/Blue | Blue | .72 x .68 | 1.99 | 1.87 | 1.78 |
| 265050CX | JK-905A | Black/Red | White | .58 x .57 | .92 | .73 | .66 |
| 265068CX | JK-905B | Black/Yellow | White | .58 x .57 | .92 | .73 | .66 |
| 265076CX | JK-905C | Black/Blue | White | .58 x .57 | .92 | .73 | .66 |
| 265084CX | JK-905D | Black/Green | White | .58 x .57 | .92 | .73 | .66 |
| 265017CX | JK-904A | Black/Red | White | .47 x .78 | .99 | .93 | .88 |
| 265025CX | JK-904B | Black/Yellow | White | .47 x .78 | .99 | .93 | .88 |
| 265033CX | JK-904C | Black/Blue | White | .47 x .78 | .99 | .93 | .88 |
| 265041CX | JK-904D | Black/Green | White | .47 x .78 | .99 | .93 | .88 |
| 265261CX | CR-MS-5C5-T18* | Grey | Grey | .68 x .51 | .78 | .67 | .61 |
| 265252CX | CR-MS-4C5-T18* | Grey | Green | .68 x .51 | .78 | .67 | .61 |
| 265244CX | CR-MS-3C5-T18* | Grey | Blue | .68 x .51 | .78 | .67 | .61 |
| 265236CX | CR-MS-2C5-T18* | Grey | Yellow | .68 x .51 | .78 | .67 | .61 |
| 265228CX | CR-MS-1C5-T18* | Grey | Red | .68 x .51 | .78 | .67 | .61 |

* For use with 1/4" knurled shaft

See pages 50-52 for our selection of Linear and Audio Taper Potentiometers.



Black Instrumentation Knobs (1/4" Shaft Diameters)

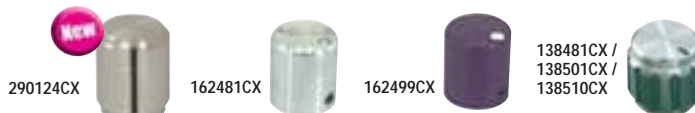
- Set screw for secure attachment
- RN-112A/113A/114A: Numeric dial type



| Part No. | Product No. | Body Color | Pointer Color | Size (H" x Dia.) | 1 | 10 | 100 |
|----------|-------------|------------|---------------|------------------|--------|-------|-------|
| 265092CX | JK-906A | Black | White | .72 x 1.39 | \$1.09 | \$.87 | \$.80 |
| 265105CX | JK-906B | Black | White | .79 x .95 | 1.02 | .71 | .65 |
| 265113CX | JK-906C | Black | White | .64 x .82 | .83 | .62 | .57 |
| 265121CX | JK-906D | Black | White | .58 x .61 | .68 | .53 | .50 |
| 264997CX | JK-902A | Black | White | .69 x 1.31 | .74 | .57 | .53 |
| 265009CX | JK-902B | Black | White | .60 x .95 | .69 | .47 | .44 |
| 264920CX | JK-901A | Black/Alum | White | .79 x 1.77 | 1.34 | 1.16 | 1.05 |
| 264946CX | JK-901B | Black/Alum | White | .64 x 1.29 | .90 | .71 | .65 |
| 264954CX | JK-901C | Black/Alum | White | .61 x 1.06 | .75 | .59 | .54 |
| 264989CX | JK-901D | Black/Alum | White | .47 x .78 | .68 | .53 | .48 |
| 264882CX | RN-112A | Black/Alum | Numeric | .90 x 1.46 | .99 | .93 | .88 |
| 264891CX | RN-113A | Black/Alum | Numeric | .70 x 1.15 | .99 | .93 | .88 |
| 264911CX | RN-114A | Black/Alum | Numeric | .58 x 1.46 | .99 | .93 | .88 |
| 102787CX | JK-903C | Black | White | .54 x 1.25 | .64 | .41 | .39 |
| 104176CX | JK-902C | Black | White | .49 x .75 | .99 | .85 | .65 |
| 202286CX | CP-Z1-M-S | Black/Alum | White | .60 x .80 | .79 | .69 | .64 |
| 136240CX | GKB-214 | Black/Alum | White | .52 x .54 | .65 | .55 | .49 |
| 138392CX | 41108-1 | Black/Alum | White | .56 x .85 | .79 | .59 | .54 |

Aluminum Instrumentation Knobs (1/8" and 1/4" Shaft Diameters)

- Includes: Set screw for secure attachment
- 290124: Coarse surface for sensitive control; 1/8" shaft diameter



| Part No. | Mfr. Cross Ref. No. | Shaft Size | Body Color | Pointer Color | Size (H" x Dia.) | 1 | 10 | 100 |
|----------|---------------------|------------|------------|---------------|------------------|--------|--------|--------|
| 290124CX | 42008-1 | 1/8" | Silver | Silver | .500 x .625 | \$1.99 | \$1.79 | \$1.61 |
| 162481CX | K5-1/4S | 1/4" | Chrome | Silver | .500 x .560 | 1.19 | 1.09 | .96 |
| 162499CX | K5-1/4B | 1/4" | Black | White | .500 x .560 | 1.55 | 1.39 | 1.07 |
| 138481CX | KN031 | 1/4" | Aluminum | Black | .610 x .650 | 1.49 | 1.35 | 1.19 |
| 138501CX | KN032 | 1/4" | Aluminum | Black | .870 x .750 | 1.95 | 1.71 | 1.55 |
| 138510CX | KN033 | 1/4" | Aluminum | Black | 1.18 x .870 | 2.49 | 2.24 | 1.95 |

DC Brushless Fans

Color Code Legend
New Sale Qty Save Closeout



163475CX



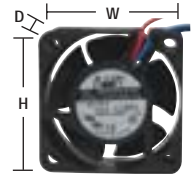
102921CX

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Low acoustical noise rating



213891CX



249375CX

| Part Number | Manufacturer | Product Number | Voltage (VDC) | Size* (W" x H" x D") | Air Flow (CFM) | Bearing | Current (mA) | Power (Watts) | Agency Approvals | Noise (dBA) | Connection (Leads) | Pricing | | | |
|-------------|--------------------|-------------------|---------------|----------------------|----------------|---------|--------------|---------------|------------------|-------------|--------------------|---------|--------|--------|--------|
| | | | | | | | | | | | | 1 | 10 | 50 | 100 |
| 163475CX | Nidec | C34427-55APP | 5 | 1.00 x 1.00 x 0.40 | 0.5 | Ball | 90 | 0.45 | — | 22 | 2" | \$4.95 | \$4.46 | \$3.56 | \$2.67 |
| 131246CX | Adda | AD0205LX-G50 | 5 | 1.00 x 1.00 x 0.40 | 1.8 | Sleeve | 100 | 0.5 | UL/CSA/CE | 15.6 | 5.5" | 8.49 | 7.64 | 6.11 | 4.58 |
| 206156CX | Sunon | KDE0502PFB3-B | 5 | 1.00 x 1.00 x 0.40 | 1.83 | Ball | 60 | 0.3 | UL/CSA/TUV/CE | 23 | 5" | 11.95 | 10.95 | 9.95 | 8.95 |
| 196373CX | Sunon | KD0504PFB2-B | 5 | 1.60 x 1.60 x 0.40 | 5.5 | Ball | 90 | 0.5 | UL/CUL | 23 | 12" | 8.95 | 8.09 | 7.25 | 6.55 |
| 102921CX | Sunon | KD0504PFS2-B | 5 | 1.60 x 1.60 x 0.40 | 6.3 | Sleeve | 120 | 0.6 | UL/CUL | 24.3 | 12" | 7.95 | 6.95 | 6.25 | 5.59 |
| 171678CX | Delta | AFB0405HHD | 5 | 1.60 x 1.60 x 0.80 | 8.6 | Ball | 700 | 2.0 | — | 36 | 2.5" | 5.49 | 4.94 | 3.95 | 2.96 |
| 207061CX | Adda | AD0505MB-G90 | 5 | 2.00 x 2.00 x 0.40 | 10.5 | Ball | 120 | 0.7 | UL/CSA/CE | 24 | 11" | 7.95 | 6.55 | 5.75 | 4.29 |
| 279566CX | Mechatronics | F6025H05B | 5 | 2.36 x 2.36 x 1.00 | 20 | Ball | 410 | 2.05 | UL/CUL/TUV | 31 | 6" | 8.45 | 8.05 | 7.18 | 6.82 |
| 212804CX | Sunon | KDE1202PFB3-B | 12 | 1.00 x 1.00 x 0.40 | 1.3 | Ball | 40 | 0.5 | UL/CUL/TUV/CE/DE | 26 | 5.9" | 10.95 | 9.89 | 8.89 | 7.99 |
| 102912CX | Sunon | KD1202PFB2-B | 12 | 1.00 x 1.00 x 0.40 | 2.0 | Ball | 60 | 0.7 | UL/CSA/TUV | 30 | 6" | 11.95 | 8.59 | 7.95 | 7.49 |
| 212791CX | Sunon | KDE1202PFB1-B | 12 | 1.00 x 1.00 x 0.40 | 2.4 | Ball | 80 | 1.0 | UL/CUL/TUV/CE/DE | 33 | 5.9" | 10.95 | 8.50 | 7.85 | 6.95 |
| 212767CX | Sunon | KDE1203PFB3-B | 12 | 1.18 x 1.18 x 0.40 | 2.3 | Ball | 50 | 0.6 | UL/CUL/TUV/CE/DE | 18.5 | 5.9" | 10.95 | 8.75 | 7.85 | 6.95 |
| 212775CX | Sunon | KDE1203PFB2-B | 12 | 1.18 x 1.18 x 0.40 | 3.0 | Ball | 60 | 0.8 | UL/CUL/TUV/CE/DE | 25 | 5.9" | 9.95 | 8.96 | 8.06 | 7.25 |
| 212783CX | Sunon | KDE1203PFB1-B | 12 | 1.18 x 1.18 x 0.40 | 3.5 | Ball | 75 | 0.9 | UL/CUL/TUV/CE/DE | 27 | 5.9" | 10.95 | 8.50 | 7.85 | 6.95 |
| 212732CX | Sunon | KDE1235PFB3-B | 12 | 1.40 x 1.40 x 0.40 | 3.2 | Ball | 50 | 0.6 | UL/CUL/TUV/CE/DE | 18 | 5.9" | 11.95 | 10.79 | 9.69 | 8.75 |
| 212741CX | Sunon | KDE1235PFB2-B | 12 | 1.40 x 1.40 x 0.40 | 4.5 | Ball | 60 | 0.8 | UL/CUL/TUV/CE/DE | 21 | 5.9" | 11.95 | 9.49 | 8.49 | 7.65 |
| 212759CX | Sunon | KDE1235PFB1-B | 12 | 1.40 x 1.40 x 0.40 | 5.2 | Ball | 80 | 1.0 | UL/CUL/TUV/CE/DE | 25 | 5.9" | 11.95 | 9.49 | 8.49 | 7.65 |
| 207052CX | Adda | AD0412MB-K90 | 12 | 1.60 x 1.60 x 0.25 | 5.5 | Ball | 60 | 0.72 | UL/CSA/TUV/CE | 25 | 5" | 6.95 | 6.26 | 5.00 | 3.75 |
| 191476CX | Common Wealth | FP-108HX/DC | 12 | 1.60 x 1.60 x 0.40 | 4.0 | Sleeve | 60 | 0.72 | UL/CSA/TUV/CE | 25 | 12" | 5.95 | 4.79 | 3.59 | 2.55 |
| 210796CX | Sunon | KD1204PFB3H | 12 | 1.60 x 1.60 x 0.40 | 4.7 | Ball | 50 | 0.6 | UL/CUL/TUV/CE | 24 | 14" | 6.95 | 6.25 | 5.59 | 4.95 |
| 279611CX | Toyo | T401012VH | 12 | 1.60 x 1.60 x 0.40 | 5.8 | Ball | 90 | 1.1 | UL/CUL/TUV/CE | 33.5 | 12" | 7.49 | 6.75 | 6.09 | 5.45 |
| 189691CX | Sunon | KD1204PFS2 | 12 | 1.60 x 1.60 x 0.40 | 6.3 | Sleeve | 70 | 0.9 | UL/CSA/TUV | 24 | 12" | 7.95 | 7.19 | 6.45 | 5.45 |
| 161699CX | Sunon | KD1204PFB2-B | 12 | 1.60 x 1.60 x 0.40 | 6.3 | Ball | 70 | 0.6 | UL/CSA/TUV | 30 | 12" | 7.95 | 6.95 | 6.25 | 5.59 |
| 212716CX | Sunon | KDE1204PFB2-H | 12 | 1.60 x 1.60 x 0.40 | 6.5 | Ball | 90 | 1.1 | UL/CUL/TUV/CE/DE | 27 | 12" | 6.65 | 4.95 | 4.36 | 3.95 |
| 213428CX | Adda ¹ | AD0412HB-G76 | 12 | 1.60 x 1.60 x 0.40 | 6.7 | Ball | 100 | 1.2 | CE | 30.2 | 12"/3 leads | 7.59 | 7.19 | 6.99 | 5.95 |
| 212724CX | Sunon | KDE1204PFB1-H | 12 | 1.60 x 1.60 x 0.40 | 8.3 | Ball | 110 | 1.4 | UL/CUL/TUV/CE/DE | 34.4 | 12" | 6.65 | 4.95 | 4.36 | 3.95 |
| 174131CX | Jamicon | JF0413S1M | 12 | 1.60 x 1.60 x 0.47 | 3.8 | Sleeve | 90 | 1.1 | UL/CSA/TUV | 29 | 14" | 2.95 | 2.66 | 2.12 | 1.59 |
| 213891CX | Adda | AD0412MB-D50 | 12 | 1.60 x 1.60 x 0.60 | 8.1 | Ball | 100 | 1.2 | UL/CUL/CE | 31.8 | 11.5" | 7.59 | 7.19 | 6.45 | 5.85 |
| 136178CX | Adda | AD0412MS-C70 | 12 | 1.60 x 1.60 x 0.80 | 5 | Sleeve | 110 | 1.32 | UL/CSA | 23 | 9" | 5.49 | 4.95 | 3.95 | 2.95 |
| 195899CX | Sunon | KDE1204PKS2 | 12 | 1.60 x 1.60 x 0.80 | 6.5 | Sleeve | 70 | 0.9 | UL/CSA/TUV | 25.5 | 12" | 7.95 | 7.15 | 6.45 | 5.35 |
| 279620CX | Toyo | T402012H | 12 | 1.60 x 1.60 x 0.80 | 6.7 | Ball | 70 | 0.84 | UL/CUL/TUV/CE | 26.2 | 12" | 7.29 | 6.99 | 6.86 | 6.75 |
| 75344CX | Delta | DFB0412M | 12 | 1.60 x 1.60 x 0.80 | 7.3 | Ball | 80 | 0.8 | UL/CSA/DE/CE | 28 | 4.5" | 7.69 | 6.92 | 5.54 | 4.15 |
| 195881CX | Common Wealth | FP-108G/DC(S1) | 12 | 1.60 x 1.60 x 0.80 | 7.6 | Ball | 160 | 1.92 | UL/CSA/CE | 32 | 12" | 7.59 | 6.83 | 5.46 | 4.10 |
| 206447CX | Delta | DFB0412H | 12 | 1.60 x 1.60 x 0.80 | 8.5 | Ball | 100 | 1.0 | UL/CSA/VDE | 32 | 8" | 7.95 | 6.95 | 6.25 | 4.29 |
| 249375CX | Adda ² | AD0412-12HB-C56 | 12 | 1.60 x 1.60 x 0.80 | 9.2 | Ball | 100 | 1.1 | UL/CUL/TUV/CE | 39.3 | 12" | 8.95 | 8.09 | 7.25 | 6.55 |
| 206164CX | Sunon | KDE1204PKBX-8 | 12 | 1.60 x 1.60 x 0.80 | 10 | Ball | 90 | 1.1 | UL/TUV/CE | 29.4 | 12" | 8.95 | 7.95 | 6.95 | 6.95 |
| 212679CX | Sunon | KDE1245PFB3-H | 12 | 1.80 x 1.80 x 0.40 | 6.1 | Ball | 60 | 0.7 | UL/CUL/TUV/CE/DE | 23 | 12" | 6.65 | 4.95 | 4.36 | 3.95 |
| 212687CX | Sunon | KDE1245PFB2-H | 12 | 1.80 x 1.80 x 0.40 | 8.0 | Ball | 90 | 1.1 | UL/CUL/TUV/CE/DE | 29 | 12" | 4.17 | 3.79 | 3.45 | 3.13 |
| 212695CX | Sunon | KDE1245PFB1-H | 12 | 1.80 x 1.80 x 0.40 | 9.5 | Ball | 110 | 1.4 | UL/CUL/TUV/CE/DE | 33.8 | 12" | 4.70 | 4.27 | 3.89 | 3.53 |
| 212644CX | Sunon | KDE1205PFB3-HG | 12 | 2.00 x 2.00 x 0.40 | 8.5 | Ball | 60 | 0.7 | UL/CUL/TUV/CE/DE | 26 | 12" | 6.49 | 5.84 | 5.26 | 4.73 |
| 212652CX | Sunon | KDE1205PFB2-HG | 12 | 2.00 x 2.00 x 0.40 | 10.6 | Ball | 80 | 1.0 | UL/CUL/TUV/CE/DE | 31.5 | 12" | 6.65 | 4.95 | 4.36 | 3.95 |
| 212661CX | Sunon | KDE1205PFB1-HG | 12 | 2.00 x 2.00 x 0.40 | 12.5 | Ball | 110 | 1.4 | UL/CUL/TUV/CE/DE | 36 | 12" | 6.65 | 4.95 | 4.36 | 3.95 |
| 212628CX | Sunon | KDE1205PHB3-H | 12 | 2.00 x 2.00 x 0.60 | 10.2 | Ball | 60 | 0.7 | UL/CUL/TUV/CE/DE | 22.5 | 12" | 8.29 | 7.46 | 6.71 | 6.04 |
| 206965CX | Adda | AD0512HB-D71 | 12 | 2.00 x 2.00 x 0.60 | 11.7 | Ball | 100 | 1.2 | UL/CUL/TUV/CE | 28.5 | 5" | 8.29 | 7.46 | 5.97 | 4.48 |
| 139601CX | Adda | AD0512HS-D71 | 12 | 2.00 x 2.00 x 0.60 | 12 | Sleeve | 100 | 1.2 | UL/CSA/CE | 29 | 12" | 8.95 | 8.09 | 7.25 | 6.55 |
| 206172CX | Sunon ³ | KDE1205PHB2-TM | 12 | 2.00 x 2.00 x 0.60 | 12.7 | Ball | 140 | 1.7 | UL/CSA/CE | 27.8 | 11"/3 leads | 7.95 | 6.11 | 5.72 | 4.29 |
| 212636CX | Sunon | KDE1205PHB2-H | 12 | 2.00 x 2.00 x 0.60 | 13 | Ball | 80 | 1.0 | UL/CUL/TUV/CE/DE | 29.5 | 12" | 8.29 | 7.46 | 6.71 | 6.04 |
| 147491CX | Shicoh | 0610-12HH | 12 | 2.36 x 2.36 x 0.40 | 16.2 | Ball | 150 | 1.8 | — | 38 | 5" | 7.95 | 7.16 | 6.44 | 5.79 |
| 195944CX | Adda | AD612MS-D71GL | 12 | 2.36 x 2.36 x 0.60 | 14.2 | Sleeve | 110 | 1.32 | UL/CSA/TUV/CE | 28.8 | 6" | 6.95 | 6.29 | 5.65 | 4.75 |
| 249068CX | Jamicon | JF0615B1H | 12 | 2.36 x 2.36 x 0.60 | 15.74 | Ball | 170 | 2.04 | UL/CUL/TUV/CE | 34 | 10.5" | 8.75 | 7.89 | 7.09 | 6.39 |
| 175046CX | Globe Motors | D24-B08A-04W3-000 | 12 | 2.36 x 2.36 x 0.80 | 10.6 | Ball | 90 | 0.8 | UL/CSA/TUV/CE | 22 | 13" | 6.95 | 6.25 | 4.95 | 3.75 |
| 144160CX | Adda | AD0612LB-C70GL | 12 | 2.36 x 2.36 x 0.80 | 12.6 | Ball | 80 | 1.0 | UL/CSA/TUV | 22.7 | 6" | 8.49 | 7.69 | 6.15 | 4.65 |
| 189595CX | Sunon | KD1206PKS2 | 12 | 2.36 x 2.36 x 0.80 | 16.5 | Sleeve | 150 | 1.8 | UL/CSA/TUV/CE | 31 | 12" | 4.95 | 3.99 | 2.99 | 2.09 |
| 185818CX | Cheng | CHA6012DB | 12 | 2.36 x 2.36 x 0.90 | 20.5 | Ball | 180 | 2.5 | UL | 33 | 12" | 6.95 | 6.29 | 5.05 | 3.79 |

¹ 213428CX: ATX PC type

² 249375CX: Speed sensor

³ 206172CX: Locked rotor alarm

DC Brushless Fans continued on pages 113 and 114

*Size Conversion: Inches to mm

| Inches | 0.25 | 0.40 | 0.47 | 0.60 | 0.80 | 0.90 | 1.00 | 1.18 | 1.26 | 1.40 | 1.50 | 1.60 | 1.80 | 2.00 | 2.36 | 2.48 | 3.15 | 3.63 | 3.72 | 3.83 | 4.68 | 5.90 | 6.75 |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| mm | 6 | 10 | 12 | 15 | 20 | 23 | 25 | 30 | 32 | 35 | 38 | 40 | 45 | 50 | 60 | 78 | 80 | 92 | 95 | 97 | 120 | 150 | 170 |



234894CX



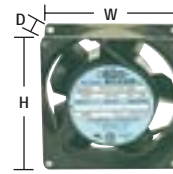
102955CX

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Low acoustical noise rating



227900CX



102875CX

| Part Number | Manufacturer | Product Number | Voltage (VDC) | Size* (W" x H" x D") | Air Flow (CFM) | Bearing | Current (mA) | Power (Watts) | Agency Approvals | Noise (dBA) | Connection (Leads) | Pricing | | | |
|-------------|------------------------------|-------------------|---------------|----------------------|----------------|---------|--------------|---------------|------------------|-------------|--------------------|---------|--------|--------|--------|
| | | | | | | | | | | | | 1 | 10 | 50 | 100 |
| 237075CX | Nidec | TA225DC-B33399-55 | 12 | 2.36 x 2.36 x 1.00 | 12 | Ball | 110 | 1.3 | UL/CSA | 17.2 | 10" | \$5.95 | \$5.35 | \$4.29 | \$3.25 |
| 75352CX | Common Wealth | FP108FDC12VS2 | 12 | 2.36 x 2.36 x 1.00 | 15.5 | Sleeve | 110 | 1.3 | UL/CSA/TUV/CE | 25 | 12" | 6.95 | 6.29 | 5.05 | 3.79 |
| 136143CX | Delta | S80612M | 12 | 2.36 x 2.36 x 1.00 | 17.7 | Sleeve | 110 | 1.8 | UL/CSA/VDE | 26.5 | 5" | 5.95 | 4.95 | 3.95 | 2.95 |
| 279646CX | Toyot | T602512H | 12 | 2.36 x 2.36 x 1.00 | 18.1 | Ball | 140 | 1.7 | UL/CUL/TUV/CE | 34 | 12" | 5.89 | 5.75 | 5.25 | 4.75 |
| 102947CX | Jamicon | JF0625S1H | 12 | 2.36 x 2.36 x 1.00 | 20.5 | Sleeve | 230 | 2.7 | UL/CSA/TUV | 30.5 | 11" | 6.95 | 6.29 | 5.05 | 3.79 |
| 150421CX | Jamicon | JF0625B1H | 12 | 2.36 x 2.36 x 1.00 | 20.5 | Ball | 230 | 2.7 | UL/CSA/TUV | 30.5 | 10" | 6.95 | 6.29 | 5.65 | 5.09 |
| 191548CX | Common Wealth | FP108FDC12VS1B | 12 | 2.36 x 2.36 x 1.00 | 21 | Ball | 130 | 1.6 | UL/CSA/TUV/CE | 30 | 12" | 6.95 | 6.26 | 5.00 | 3.75 |
| 195910CX | Sunon | KD1206PTS1 | 12 | 2.36 x 2.36 x 1.00 | 21.7 | Sleeve | 190 | 2.3 | UL/CSA/TUV | 34 | 12" | 6.49 | 5.84 | 4.67 | 3.50 |
| 109081CX | Adda | AD0812HS-D71 | 12 | 3.15 x 3.15 x 0.60 | 29 | Sleeve | 190 | 2.3 | UL/CSA/TUV/CE | 31.4 | 12" | 9.95 | 8.99 | 8.09 | 7.25 |
| 141920CX | Adda | AD0812HB-C70 | 12 | 3.15 x 3.15 x 0.80 | 27.3 | Ball | 240 | 2.9 | UL/CSA/CE | 34 | 12" | 6.35 | 5.75 | 5.25 | 4.75 |
| 16993CX | Various ^{1*} | FAN7315SL | 12 | 3.15 x 3.15 x 1.00 | 25-40* | Sleeve | 120-200* | 1-2* | UL/CSA* | 25* | 4-12** | 6.95 | 6.29 | 5.65 | 4.95 |
| 75361CX | Various * | FAN6315BL | 12 | 3.15 x 3.15 x 1.00 | 25-40* | Ball | 120-200* | 1-2* | UL/CSA* | 25* | 4-12** | 5.95 | 5.39 | 4.35 | 3.25 |
| 234894CX | Adda | AD0812LB-A70GL | 12 | 3.15 x 3.15 x 1.00 | 27.6 | Ball | 120 | 1.44 | UL/CSA/TUV/CE | 22.5 | 11.5 | 8.19 | 6.39 | 5.89 | 5.49 |
| 154288CX | Sunon | KDE1208PTS3-6 | 12 | 3.15 x 3.15 x 1.00 | 29.4 | Sleeve | 120 | 1.4 | UL/CSA/TUV/CE | 24.5 | 5.5" | 4.55 | 4.09 | 3.69 | 3.06 |
| 195952CX | Panasonic | FMB-08A12M | 12 | 3.15 x 3.15 x 1.00 | 30 | Sleeve | 124 | 1.5 | UL/CSA | 28 | 11" | 4.55 | 4.09 | 3.29 | 2.45 |
| 123529CX | Adda | AD0812MS-A70GL | 12 | 3.15 x 3.15 x 1.00 | 32 | Sleeve | 150 | 1.8 | UL/CSA/TUV | 28.3 | 12" | 6.95 | 6.29 | 5.05 | 3.79 |
| 265578CX | Yate Loon | D80SH-12 | 12 | 3.15 x 3.15 x 1.00 | 33 | Ball | 190 | 2.28 | UL/CUL/TUV/CE | 35.0 | 5" | 7.29 | 7.18 | 7.07 | 6.96 |
| 166959CX | NMB (Smart Fan) [†] | 3110NL-012Q340-00 | 12 | 3.15 x 3.15 x 1.00 | 35 | Ball | 290 | 3.5 | UL/CSA | 35 | 2" | 8.95 | 8.09 | 6.49 | 4.85 |
| 191599CX | NMB | 3110KL-04W-B50 | 12 | 3.15 x 3.15 x 1.00 | 39 | Ball | 230 | 2.7 | CSA | 34 | 10" | 7.49 | 6.75 | 5.39 | 3.95 |
| 185834CX | Panaflo | FBM08A12H | 12 | 3.15 x 3.15 x 1.00 | 39.6 | Sleeve | 220 | 2.1 | --- | 32 | 11" | 6.95 | 6.29 | 5.05 | 3.79 |
| 206181CX | Sunon | KDE1208PTS1-6 | 12 | 3.15 x 3.15 x 1.00 | 42 | Sleeve | 220 | 2.6 | UL/CSA/TUV/CE | 34 | 9" | 5.95 | 5.35 | 4.29 | 3.25 |
| 185826CX | NMB ² | 3110KL-04W-B69 | 12 | 3.15 x 3.15 x 1.00 | 42 | Ball | 340 | 3.1 | UL/CSA/VDE/CE | 35 | 13*/3 leads | 6.95 | 6.29 | 5.05 | 3.79 |
| 102955CX | Sunon | KD1208PTB1-6 | 12 | 3.15 x 3.15 x 1.00 | 42.5 | Ball | 220 | 2.6 | UL/CSA/TUV/CE | 33.5 | 12" | 6.49 | 5.85 | 5.29 | 4.75 |
| 249148CX | Sunon | KDE1208PTB1-6 | 12 | 3.15 x 3.15 x 1.00 | 42.5 | Ball | --- | 2.6 | --- | 33.5 | 12" | 6.49 | 5.85 | 5.29 | 4.75 |
| 172460CX | Nidec ³ | TA300DCM33406-68 | 12 | 3.15 x 3.15 x 1.00 | 43 | Ball | 290 | 3.5 | UL/CSA | 41 | 11*/3 leads | 9.95 | 8.99 | 7.19 | 5.39 |
| 189755CX | Cheng | CHA8012DB | 12 | 3.15 x 3.15 x 1.00 | 44.3 | Ball | 300 | 3.6 | UL | 37 | 2" w/ conn. | 5.95 | 5.39 | 4.35 | 3.29 |
| 196015CX | Cheng | CHA9212CB | 12 | 3.63 x 3.63 x 1.00 | 44.1 | Ball | 190 | 2.3 | UL/CSA | 31 | 12" | 5.25 | 4.75 | 3.79 | 2.85 |
| 75441CX | Common Wealth | FP108BDC12VS1 | 12 | 3.63 x 3.63 x 1.00 | 45 | Sleeve | 320 | 3.1 | UL/CSA/TUV/CE | 32 | 10" | 3.19 | 2.79 | 2.49 | 2.29 |
| 154641CX | Nidec | TA350DC-M33422-16 | 12 | 3.63 x 3.63 x 1.00 | 48 | Ball | 290 | 3.5 | UL/CSA | 43 | 12" | 7.55 | 6.79 | 5.45 | 4.09 |
| 190983CX | Sunon | KD1209PTB1-6A | 12 | 3.63 x 3.63 x 1.00 | 51 | Ball | 220 | 2.6 | UL/CSA/TUV | 34 | 12" | 7.25 | 6.55 | 5.89 | 5.29 |
| 116476CX | Jamicon | JF0925S1H | 12 | 3.63 x 3.63 x 1.00 | 52 | Sleeve | 350 | 4.2 | UL/CSA/TUV | 37 | 10" | 4.19 | 3.79 | 3.05 | 2.25 |
| 162739CX | NMB (Smart Fan) [†] | 3610KL-04W-B56 | 12 | 3.63 x 3.63 x 1.00 | 55 | Ball | 430 | 3.8 | UL/CSA/VDE/CE | 37 | 10*/3 leads | 7.19 | 6.47 | 5.18 | 3.88 |
| 102963CX | Nidec | TA350DC-M33503-55 | 12 | 3.63 x 3.63 x 1.00 | 56 | Ball | 400 | 4.8 | UL/CSA | 45 | 8" | 7.95 | 6.95 | 6.25 | 5.59 |
| 279654CX | Toyot | T922512H | 12 | 3.63 x 3.63 x 1.00 | 56.4 | Ball | 280 | 3.4 | UL/CUL/TUV/CE | 34.3 | 12" | 7.95 | 7.15 | 6.65 | 6.45 |
| 284971CX | Delta | EFB09SH | 12 | 3.63 x 3.63 x 1.00 | 75.6 | Ball | 500 | 6.0 | UL/CSA/VDE/CE | 47 | 5" | 8.99 | 7.66 | 6.59 | 5.60 |
| 213567CX | Nidec ⁴ | A34124-33 | 12 | 3.83 x 3.72 x 1.30 | 25 | Ball | 650 | 7.8 | UL/CUL | 60 | 11.5*/3 leads | 19.95 | 17.95 | 16.25 | 14.59 |
| 174140CX | Common Wealth | FP108MS3 | 12 | 4.68 x 4.68 x 1.00 | 54 | Sleeve | 140 | 1.7 | UL/CSA/TUV/CE | 25 | 12" | 6.95 | 6.29 | 5.05 | 3.79 |
| 227900CX | Common Wealth | FP-108M-S1-B | 12 | 4.68 x 4.68 x 1.00 | 80 | Ball | 330 | 4.0 | UL/CSA/VDE/CE | 42 | 12" | 10.95 | 9.85 | 8.89 | 7.99 |
| 102875CX | Delta | WFB1212H | 12 | 4.68 x 4.68 x 1.00 | 86.5 | Ball | 360 | 4.3 | UL/CSA/TUV | 37.6 | 12" | 10.95 | 9.89 | 8.89 | 7.45 |
| 174924CX | Globe Motors | D47-B10A-04T3-000 | 12 | 4.68 x 4.68 x 1.00 | 90 | Ball | 740 | 6.8 | UL/CSA | 39 | Terminals | 6.95 | 6.29 | 5.05 | 3.79 |
| 163619CX | NMB (Smart Fan) [†] | 4710NL012P535P0 | 12 | 4.68 x 4.68 x 1.00 | 90 | Ball | 740 | 8.9 | --- | 38.5 | 12" | 4.95 | 4.49 | 3.59 | 2.69 |
| 159020CX | Sunon | KDE1212PMS1-6A | 12 | 4.68 x 4.68 x 1.50 | 107 | Sleeve | 570 | 6.8 | UL/CSA/TUV | 41 | 12" | 11.95 | 10.75 | 9.69 | 8.05 |
| 94625CX | Sunon | KD1212PMB1-6A | 12 | 4.68 x 4.68 x 1.50 | 108 | Ball | 570 | 6.8 | UL/CSA/TUV/CE | 42 | 12" | 11.95 | 10.79 | 8.65 | 6.49 |
| 189851CX | Delta | WFB1212HE | 12 | 4.68 x 4.68 x 1.50 | 108 | Ball | 490 | 5.9 | UL/CSA/VDE/CE | 41.3 | 12" | 11.95 | 10.79 | 9.69 | 7.99 |
| 206201CX | Sunon | KDE2404PKB3 | 24 | 1.60 x 1.60 x 0.80 | 6 | Ball | 30 | 0.7 | UL/CSA/TUV/CE | 24 | 12" | 7.49 | 6.79 | 6.09 | 5.49 |
| 100909CX | Sunon | KD2404PKS2 | 24 | 1.60 x 1.60 x 0.80 | 6.5 | Sleeve | 50 | 1.2 | UL/CSA/TUV/CE | 25.5 | 12" | 7.95 | 7.19 | 6.45 | 5.25 |
| 140661CX | NMB | 2408NL-05W-B60 | 24 | 2.36 x 2.36 x 0.80 | 18.4 | Ball | 100 | 2.4 | --- | 31 | 2" | 5.95 | 5.39 | 4.34 | 3.24 |
| 174107CX | Jamicon | JF0625S2M | 24 | 2.36 x 2.36 x 1.00 | 18 | Sleeve | 130 | 3.1 | UL/TUV | 28.5 | 10" | 4.49 | 4.04 | 3.23 | 2.42 |
| 189860CX | Jamicon | JF0625B2M | 24 | 2.36 x 2.36 x 1.00 | 18 | Ball | 130 | 3.1 | UL/CSA/TUV/CE | 28.5 | 10" | 8.95 | 8.09 | 7.25 | 6.55 |
| 227248CX | Mechatronics | F6025E24B | 24 | 2.36 x 2.36 x 1.00 | 24 | Ball | 125 | 3.0 | UL/CUL/TUV | 36 | 12" | 7.95 | 7.15 | 5.75 | 4.29 |

¹ 16993CX: Replacement for the PC/XT computer power supply fan

[†] Temperature control: P/N 166959CX (40°C); P/N 162739CX (50°C, 3 leads); P/N 163619CX (35°C)

² 185826CX: Speed sensor

³ 172460CX: Locked rotor alarm

* Manufacturer & specifications may vary

⁴ 213567CX: Blower type

DC Brushless Fans continued on page 114

*Size Conversion: Inches to mm

| Inches | 0.25 | 0.40 | 0.47 | 0.60 | 0.80 | 0.90 | 1.00 | 1.18 | 1.26 | 1.40 | 1.50 | 1.60 | 1.80 | 2.00 | 2.36 | 2.48 | 3.15 | 3.63 | 3.72 | 3.83 | 4.68 | 5.90 | 6.75 |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| mm | 6 | 10 | 12 | 15 | 20 | 23 | 25 | 30 | 32 | 35 | 38 | 40 | 45 | 50 | 60 | 78 | 80 | 92 | 95 | 97 | 120 | 150 | 170 |

DC Brushless Fans (Continued)

Color Code Legend
New Sale Qty Save Closeout



136160CX



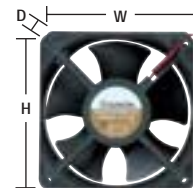
236099CX

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Low acoustical noise rating

Quantity
SAVE

SALE



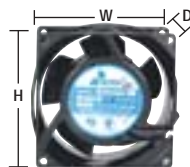
153411CX

| Part Number | Manufacturer | Product Number | Voltage (VDC) | Size* (W" x H" x D") | Air Flow (CFM) | Bearing | Current (mA) | Power (Watts) | Agency Approvals | Noise (dBA) | Connection (Leads) | Pricing | | | |
|-------------|--------------|----------------|---------------|----------------------|----------------|---------|--------------|---------------|------------------|-------------|--------------------|---------|--------|--------|--------|
| | | | | | | | | | | | | 1 | 10 | 50 | 100 |
| 136160CX | Jamicon | JF0825B2H | 24 | 3.15 x 3.15 x 1.00 | 39.2 | Ball | 150 | 3.6 | UL/CSA/TUV | 31 | 12" | \$9.49 | \$8.55 | \$7.69 | \$6.95 |
| 189878CX | Sunon | KD2408PTB1-6A | 24 | 3.15 x 3.15 x 1.00 | 42.5 | Ball | 220 | 2.6 | UL/CSA/TUV/CE | 36.5 | 12" | 9.95 | 8.99 | 7.19 | 5.39 |
| 236099CX | PAPST | 8314/19H | 24 | 3.15 x 3.15 x 1.26 | 32 | Ball | 245 | 6.0 | UL/CSA/VDE/CE | 36 | 12"/3 leads | 9.95 | 8.95 | 8.09 | 7.25 |
| 189886CX | NMB | 3610KL-05W-B30 | 24 | 3.63 x 3.63 x 1.00 | 40.6 | Ball | 87 | 2.1 | UL/CSA/VDE | 34 | 12" | 7.95 | 6.39 | 4.79 | 3.35 |
| 174094CX | Jamicon | JF0925S2H | 24 | 3.63 x 3.63 x 1.00 | 52 | Sleeve | 190 | 4.6 | UL/CUL | 37 | 10" | 6.95 | 6.26 | 5.00 | 3.75 |
| 206210CX | Sunon | KDE2412PTS3-6A | 24 | 4.68 x 4.68 x 1.00 | 67 | Sleeve | 130 | 3.1 | UL/CSA | 35 | 12" | 9.95 | 8.99 | 8.09 | 7.25 |
| 175281CX | Globe Motors | DA7B10A05W2000 | 24 | 4.68 x 4.68 x 1.00 | 70 | Ball | 160 | 2.9 | UL/CSA/TUV/CE | 34 | 12" | 12.95 | 11.69 | 9.35 | 6.99 |
| 249287CX | Jamicon | JF1225B2H5 | 24 | 4.68 x 4.68 x 1.00 | 82.97 | Ball | 500 | 12 | — | 41.1 | 7.5" | 12.39 | 11.15 | 9.99 | 8.99 |
| 206228CX | Sunon | KDE2412PMS1-6A | 24 | 4.68 x 4.68 x 1.00 | 107 | Sleeve | 310 | 7.4 | UL/CSA/TUV/CE | 41 | 11"/3 leads | 13.69 | 12.32 | 11.09 | 9.98 |
| 100968CX | Sunon | KDE2412PMB3-6A | 24 | 4.68 x 4.68 x 1.50 | 83 | Ball | 140 | 3.4 | UL/CSA/TUV/CE | 35 | 12" | 12.95 | 11.69 | 10.49 | 8.75 |
| 153411CX | Sunon | KD2412PMB2-6A | 24 | 4.68 x 4.68 x 1.50 | 98 | Ball | 230 | 5.5 | UL/CSA/TUV | 36.5 | 12" | 11.95 | 10.79 | 9.69 | 8.75 |
| 166730CX | Mechatronics | A9225H48B | 48 | 3.63 x 3.63 x 1.00 | 51 | Ball | 100 | 4.8 | UL/CSA/TUV | 36 | 13" | 3.09 | 2.81 | 2.56 | 2.32 |

1 236099CX/206228CX: Locked rotor alarm

AC Tube Axial Fans

Call for additional OEM PRICING – we carry major manufacturers.



111915CX



16977CX



- Rating 115 & 220VAC @ 50-60Hz
- Low acoustical noise rating
- Agency approved fans
- Ball and sleeve bearings
- Air flow from 10.2 to 226 CFM

Fan Power Cords on Next Page



102904CX



75432CX

| Part Number | Manufacturer | Product Number | Voltage (VAC) | Size* (W" x H" x D") | Air Flow (CFM) | Bearing | Current (mA) | Power (Watts) | Agency Approvals | Noise (dBA) | Connection (Leads) | Pricing | | | |
|-------------|---------------|------------------|---------------|----------------------|----------------|---------|--------------|---------------|------------------|-------------|--------------------|---------|---------|---------|---------|
| | | | | | | | | | | | | 1 | 10 | 50 | 100 |
| 213866CX | Fulltech | UF60D11H | 115 | 2.36 x 2.36 x 1.18 | 10.2 | Ball | 35 | 4 | UL/CUL/VDE/CE | 28 | 12" leads | \$15.95 | \$14.39 | \$12.95 | \$11.65 |
| 162704CX | Toyo | USTF60301153W | 115 | 2.36 x 2.36 x 1.18 | 11 | Ball | 38 | 4 | UL/CSA/CE | 29 | 12" leads | 15.49 | 13.95 | 12.55 | 11.29 |
| 146077CX | Common Wealth | FP108AX-S1-B | 115 | 3.15 x 3.15 x 1.00 | 23 | Ball | 140 | 14 | UL/CE | 29 | 12" leads | 12.95 | 11.69 | 10.49 | 9.45 |
| 75408CX | Fulltech | UF80B12SWH | 115 | 3.15 x 3.15 x 1.00 | 24 | Sleeve | 140 | 14 | UL/CSA/TUV/CE | 35 | 12" leads | 14.95 | 13.49 | 12.15 | 10.95 |
| 212610CX | Fulltech | UF80B12BTH | 115 | 3.15 x 3.15 x 1.00 | 24 | Ball | 140 | 14 | UL/CSA/TUV/CE | 35 | Terminals | 12.95 | 11.95 | 10.95 | 9.95 |
| 111915CX | Fulltech | UF80A12SWL | 115 | 3.15 x 3.15 x 1.50 | 25 | Sleeve | 110 | 12 | UL/CSA/TUV/CE | 32 | 12" leads | 11.95 | 10.95 | 9.95 | 8.95 |
| 16977CX | Fulltech | UF80A12BWL | 115 | 3.15 x 3.15 x 1.50 | 25 | Ball | 110 | 11 | UL/CSA/TUV/CE | 32 | 12" leads | 13.95 | 12.59 | 11.35 | 10.19 |
| 16969CX | Fulltech | UF80A12BTL | 115 | 3.15 x 3.15 x 1.50 | 25 | Ball | 110 | 12 | UL/CSA/TUV/CE | 32 | Terminals | 14.95 | 13.45 | 11.25 | 10.75 |
| 102904CX | Fulltech | UF80A12BWH | 115 | 3.15 x 3.15 x 1.50 | 29 | Ball | 120 | 12 | UL/CSA/TUV/CE | 36 | 12" leads | 14.95 | 13.49 | 12.15 | 10.95 |
| 121601CX | Fulltech | UF80A12BTH | 115 | 3.15 x 3.15 x 1.50 | 30 | Ball | 120 | 12 | UL/CSA/TUV/CE | 36 | Terminals | 13.95 | 12.95 | 11.95 | 10.95 |
| 75432CX | Sunon | SF11592A-1092HSL | 115 | 3.63 x 3.63 x 1.00 | 36 | Sleeve | 130 | 12 | UL/CSA/TUV/CE | 39 | 12" leads | 13.95 | 12.59 | 11.35 | 10.19 |
| 75459CX | Sunon | SF11592A-1092HBT | 115 | 3.63 x 3.63 x 1.00 | 37 | Ball | 110 | 12 | UL/CSA/TUV/CE | 40 | Terminals | 15.95 | 14.39 | 12.95 | 11.65 |
| 124062CX | Sunon | SP101AT1122HBT | 115 | 4.68 x 4.68 x 1.00 | 78 | Ball | 180 | 18 | CSA/TUV/CE | 46 | Terminals | 13.49 | 10.95 | 9.89 | 9.19 |
| 118965CX | Fulltech | UF12A12BTL1 | 115 | 4.68 x 4.68 x 1.50 | 64 | Ball | 80 | 15 | UL/CSA/TUV/CE | 37 | Terminals | 14.95 | 13.49 | 12.15 | 10.95 |
| 109874CX | Fulltech | UF12A12STL | 115 | 4.68 x 4.68 x 1.50 | 81 | Sleeve | 150 | 15 | UL/CSA/TUV/CE | 38 | Terminals | 12.95 | 11.69 | 10.55 | 9.49 |
| 111894CX | Common Wealth | FP108-1-S1/W | 115 | 4.68 x 4.68 x 1.50 | 105 | Sleeve | 180 | 17 | UL/CSA/CE | 47 | 12" leads | 13.95 | 12.59 | 11.35 | 10.19 |
| 106585CX | Common Wealth | FP108-1-S1/T | 115 | 4.68 x 4.68 x 1.50 | 105 | Sleeve | 180 | 12 | UL/CSA/CE | 47 | Terminals | 15.95 | 14.39 | 12.95 | 11.65 |
| 16934CX | Common Wealth | FP108-1-S1-B | 115 | 4.68 x 4.68 x 1.50 | 105 | Ball | 200 | 17 | UL/CSA/TUV/CE | 47 | Terminals | 16.95 | 15.29 | 13.75 | 12.39 |
| 212599CX | Fulltech | UF12A12BWH | 115 | 4.68 x 4.68 x 1.50 | 106 | Ball | 190 | 15 | UL/CSA/TUV/CE | 46 | 12" leads | 12.95 | 11.95 | 10.95 | 9.95 |
| 275792CX | Sunon | SP101A-123HBT | 115 | 4.68 x 4.68 x 1.50 | 107 | Ball | 180 | 18 | UL/CSA/TUV/CE | 50 | Terminals | 12.85 | 11.19 | 9.25 | 6.95 |
| 206308CX | Adda | AA1281UB-AT | 115 | 4.68 x 4.68 x 1.50 | 107 | Ball | 230 | 24 | CE | 48 | Terminals | 14.95 | 13.45 | 10.79 | 8.09 |
| 102883CX | Sunon | SP100A-1123XBT | 115 | 4.68 x 4.68 x 1.50 | 117 | Ball | 240 | 20 | UL/CSA/TUV/CE | 50 | Terminals | 14.95 | 13.95 | 12.95 | 11.95 |
| 108724CX | Fulltech | UF15AC12BTH | 115 | 6.75 x 5.90 x 1.50 | 211 | Ball | 230 | 28 | UL/CSA/TUV/CE | 58 | Terminals | 27.95 | 27.10 | 26.29 | 25.49 |
| 212564CX | Fulltech | UF15PC12BTL | 115 | 6.75 x 5.90 x 2.00 | 113 | Ball | 260 | 30 | UL/CSA/TUV/CE | 41 | Terminals | 26.40 | 24.00 | 21.82 | 19.84 |
| 212572CX | Fulltech | UF15PC12BWL | 115 | 6.75 x 5.90 x 2.00 | 113 | Ball | 260 | 30 | UL/CSA/TUV/CE | 41 | 12" leads | 23.74 | 21.58 | 19.62 | 17.84 |
| 121581CX | Fulltech | UF15PC12BWH | 115 | 6.75 x 5.90 x 2.00 | 226 | Ball | 250 | 30 | UL/CSA/TUV/CE | 58 | 12" leads | 29.95 | 26.95 | 23.95 | 21.49 |
| 189683CX | Fulltech | UF15PC12BTH | 115 | 6.75 x 5.90 x 2.00 | 226 | Ball | 250 | 30 | CSA | 58 | Terminals | 29.95 | 26.95 | 21.59 | 16.19 |
| 174932CX | NMB | 3115FS-23T-B10 | 220 | 3.15 x 3.15 x 1.50 | 25 | Ball | 30 | 4.6 | UL/CSA/TUV/CE | 25 | Terminals | 11.99 | 10.79 | 8.63 | 6.47 |
| 100917CX | Sunon | SF23080A/2083HSL | 220 | 3.15 x 3.15 x 1.50 | 30 | Sleeve | 60 | 13.5 | UL/CSA/TUV/CE | 35 | 12" leads | 10.49 | 8.39 | 7.55 | 5.66 |
| 209365CX | Innovative | 4C-230LB | 220 | 4.68 x 4.68 x 1.50 | 63 | Ball | 60 | 9 | TUV/CE | 34 | 10" leads | 12.95 | 11.69 | 10.49 | 9.45 |
| 102891CX | Sunon | DP200A-2123XBT | 220 | 4.68 x 4.68 x 1.50 | 117 | Ball | 120 | 21 | UL/CSA/TUV/CE | 50 | Terminals | 15.95 | 14.39 | 12.95 | 11.65 |

*Size Conversion: Inches to mm

| Inches | 0.25 | 0.40 | 0.47 | 0.60 | 0.80 | 0.90 | 1.00 | 1.18 | 1.26 | 1.40 | 1.50 | 1.60 | 1.80 | 2.00 | 2.36 | 2.48 | 3.15 | 3.63 | 3.72 | 3.83 | 4.68 | 5.90 | 6.75 |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| mm | 6 | 10 | 12 | 15 | 20 | 23 | 25 | 30 | 32 | 35 | 38 | 40 | 45 | 50 | 60 | 78 | 80 | 92 | 95 | 97 | 120 | 150 | 170 |

Compatible with DC and AC Fans – pages 112 - 114

- All guards and filters fit all fans by matching the size dimension.
Example: P/N 75408CX fan (3.15") matches P/N 31923CX metal guard (3.15").

SALE

| Part No. | Description* | 1 | 10 | 100 | 250 |
|----------|-------------------------------|-------|-------|-------|-------|
| 123502CX | 1.60" metal (chrome) guard | \$.49 | \$.43 | \$.39 | \$.35 |
| 163432CX | 2.00" metal (chrome) guard | .54 | .49 | .45 | .40 |
| 120037CX | 2.36" metal (chrome) guard | .79 | .71 | .64 | .58 |
| 31923CX | 3.15" metal (chrome) guard | .79 | .65 | .52 | .49 |
| 123511CX | 3.63" metal (chrome) guard | .99 | .78 | .67 | .61 |
| 25734CX | 4.68" metal (chrome) guard | 1.09 | .89 | .69 | .65 |
| 138561CX | 3.15" plastic guard with mesh | 1.39 | 1.19 | 1.05 | .95 |
| 229665CX | 3.63" plastic guard with mesh | 1.49 | 1.35 | 1.25 | 1.09 |
| 196816CX | 4.68" plastic guard with mesh | 1.95 | 1.55 | 1.39 | 1.25 |
| 138579CX | 3.15" alum. washable filter | 2.95 | 2.65 | 2.39 | 2.15 |
| 130104CX | 4.68" alum. washable filter | 3.49 | 3.19 | 2.75 | 2.49 |

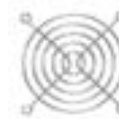
* Size conversion chart – previous page



123502CX



120037CX



31923CX/123511CX



25734CX



138561CX/196816CX



229665CX



138579CX/130104CX

Fan Power Cords: 24" Straight and Right-Angle

- Cord type: SPT-1 (2) conductor black
- Voltage rating: 300V
- Temperature range: 60°C
- Fits all terminal fans

| Part No. | Description | Length | 1 | 10 | 100 | 250 |
|----------|-----------------------|--------|-------|-------|-------|-------|
| 28564CX | Straight socket cord | 24" | \$.89 | \$.80 | \$.66 | \$.60 |
| 104192CX | 90° angle socket cord | 24" | .99 | .89 | .73 | .68 |



28564CX



104192CX



191636CX



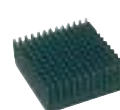
181278CX



174115CX



190545CX



129226CX/129234CX

See page 162 for detailed specifications and prices on CPU Heat Sink Fans!

Electromech

Heat Sinks

Heat Sink Compound

Thermally loaded silicone-based grease that improves transfer of energy across the metal to metal interface between transistor or rectifier to heat sink.

- Color: opaque white



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 100 |
|----------|---------------------|--------|--------|--------|
| 167249CX | THM250 (2 oz.) | \$9.95 | \$8.96 | \$8.06 |
| 236822CX | 54114 (1 oz.) | 4.95 | 4.49 | 3.95 |

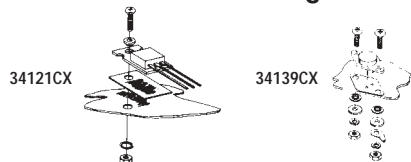
Heat Sink Compound 4-oz. Tube

This silicone-free compound provides more effective heat transfer. Will not harden, dry out, melt, or contaminate wave-solder baths.



| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 169252CX | 1978DP | \$16.95 | \$14.95 |

Heat Sink Mounting Kits



- TO-3 and TO-220 heat sink insulator assemblies
- 10 kits per pack

| Part No. | Type | Description | 1 | 10 | 100 |
|----------|--------|-------------|--------|--------|--------|
| 34121CX | TO-220 | 5 pieces | \$3.95 | \$3.55 | \$3.19 |
| 34139CX | TO-3 | 12 pieces | 3.95 | 3.59 | 3.25 |

Heat Sinks

Thermalloy

IERC

AAVID

Wakefield

Our TO-3/TO-218/TO-220 heat sinks are made from black anodized aluminum (except for P/N 107297CX which is light weight aluminum). They can be mounted horizontally or vertically depending on your applications. P/N 164734CX and 163846CX have mounting clips and some can be mounted vertically with solderable mounting tabs.

Quantity
SAVE



16512CX



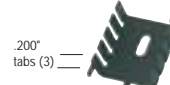
189835CX



151546CX



163846CX



42622CX/228005CX



40504CX



158051CX



70914CX



70658CX



129242CX



107297CX



164734CX

| Part No. | Mfr. Cross Reference No. | Type | Watts | Size (L" x W" x H") | Pricing | | | |
|----------|--------------------------|------------|-------|---------------------|---------|--------|--------|--------|
| | | | | | 1 | 10 | 100 | 1000 |
| 16512CX | DUDE4 | TO-3 | 30.0 | 4.8 x 1.5 x 1.3 | \$2.95 | \$2.75 | \$2.49 | \$2.25 |
| 189835CX | 635-5B2 | TO-3 | 8.0 | 1.9 x 1.4 x 0.5 | .95 | .86 | .68 | .51 |
| 151546CX | 635-125B2 | TO-3 | 8.0 | 1.9 x 1.4 x 1.3 | .99 | .89 | .67 | .60 |
| 163846CX | THM7021B | TO-218/220 | 5.0 | 1.7 x 1.8 x 0.4 | .45 | .39 | .35 | .29 |
| 42622CX | 563002B00000 | TO-220 | 3.9 | 1.2 x 1.0 x 0.5 | .35 | .30 | .28 | .26 |
| 228005CX | BK-T220 | TO-220 | 3.9 | 1.2 x 1.0 x 0.5 | .35 | .30 | .28 | .26 |
| 40504CX | 291-H-36AB | TO-220 | 2.0 | 0.9 x 1.0 x 0.4 | .89 | .79 | .69 | .59 |
| 158051CX | 577102B00000 | TO-220 | 2.0 | .75 x .52 x .38 | .39 | .35 | .29 | .25 |
| 70914CX | THM6106 | TO-220 | 1.9 | 1.2 x 1.0 x 0.5 | .35 | .30 | .28 | .26 |
| 70658CX | THM6073 | TO-220 | 1.6 | 0.8 x 0.7 x 0.4 | .22 | .19 | .16 | .13 |
| 129242CX | THM6106 | TO-220 | 1.6 | 1.2 x 1.0 x 0.5 | .49 | .45 | .39 | .35 |
| 107297CX | PSC2-U (cup-style) | TO-220 | 1.5 | 0.8 x 1.0 x 0.4 | .49 | .45 | .39 | .35 |
| 164734CX | THM6072 | TO-220 | 5.0 | 1.4 x 1.8 x 0.4 | .49 | .45 | .39 | .35 |

Serial LCD Displays and Panel Meters

Color Code Legend
New Sale Qty. Save

Scott Edwards Electronics, Inc.

Serial LCD Displays

- Includes instruction codes for character generation, cursor control, printing, etc. Examples for Stamps in PBASIC included.
- One-year warranty

Ideal for use w/ BASIC Stamps (pg 233), 80C52-BASIC controllers (pg 11) and PCs!

16 characters x 2 lines Integrated Display

- 1200-9600bps serial input with 16-byte input buffer
- Four inputs for switches/buttons that can be read via the serial connection
- EEPROM storage of settings, six custom characters, and a text screen that can be automatically displayed at startup (splash screen)
- Serial control of the standard LED backlight
- Low current draw; 5mA (backlight off) to 40mA (backlight on and bright)
- Power requirement: 4.8 - 5.5VDC @ 5mA (recommend P/N 164101CX, pg 149)
- Module size: 3.2"L x 2.0"W x 0.5"T



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 150990CX | ILM-216L | \$48.95 | \$44.09 | \$39.65 |

16 characters x 2 lines LCD Serial Backpack®

- High-contrast supertwist display
- Serial "backpack" accepts RS232, or inverted CMOS, TTL at 2400 or 9600bps
- Power requirement: 4.8 - 5.5VDC @ 3mA (recommend P/N 164101CX, pg 149)
- Connector: 5-pin header (recommend P/N 163686CX, pg 82) • Module size: 3.1"L x 1.4"W x 0.7"T



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 133129CX | BPI-216N | \$59.95 | \$53.99 | \$48.99 |

20 Characters x 4 Lines Graphics LCD

- 120 x 32 pixel graphics screen
- 2400 or 9600 bps serial input
- EEPROM stores text font and 6 full-screen images
- Supports multiple fonts and font sizes
- Included utility program lets you create and download pictures and fonts
- Power requirement: 9V battery or 5V power supply (recommend P/N 164101CX, pg 149)
- Module size: 3.1"L x 1.9"W x 0.8"T



Includes: Battery snap connectors, sample programs and manual on disk

| Part No. | Product No. | 1 | 10 |
|----------|-------------|----------|----------|
| 158166CX | SGX-120L | \$119.95 | \$107.99 |

40 characters x 4 lines LCD Serial Backpack®

- High-contrast supertwist display with unique "big character" backlight mode - prints 1" numbers and letters automatically
- Serial input at 1200, 2400, 4800 or 9600bps
- Power requirement: 5VDC @ <10mA (recommend P/N 164101CX, pg 149)
- Module size: 7.5"L x 2.2"W x 0.9"T



| Part No. | Product No. | 1 | 10 |
|----------|-------------|----------|----------|
| 136485CX | BPP-440L | \$169.95 | \$152.95 |

16 Characters x 2 Lines Serial LCD Display

- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature
- Serial input at 1200-19,200bps (jumper selectable)
- Connect 16 modules using same two wire interface
- Backlight supply current: 40mA typical
- Power requirement: 5VDC @ 9mA (recommend P/N 164101CX, pg 149)
- Display size: 2.5"L x 0.7"W • Weight: 0.6 lbs.
- Module size: 3.2"L x 1.5"W x 0.8"T



Includes: Manual and software

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 174166CX | LK162-12 | \$52.39 | \$51.19 | \$49.95 |

Serial LCD Interface Module

For Parallel LCD Displays with Hitachi 44780 Chipset

- Supports 1 x 8 thru 4 x 20 LCD display formats
- Provides word wrap, control character processing for display blanking, cursor blanking, up-down-left-right cursor controls
- Compatible with P/N 171715CX, pg 117
- Size: 1.5"L x 1.0"W



| Part No. | Product No. | 1 | 10 | 25 |
|----------|---------------|---------|---------|---------|
| 157981CX | 1616B-05A-100 | \$19.70 | \$17.91 | \$16.28 |

20 x 4 Serial LCD Display

- 20 characters x 4 line display with large digit mode
- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping and auto scroll feature
- Backlight supply current: 90mA typical
- Serial input at 1200-19,200bps (jumper selectable)
- Connect 16 modules using the same 2 wire interface
- Display size: 3.0"L x 1.0"W • One-year warranty



150957CX



157323CX

Includes: Manual and software

- 150957CX: 20 x 4 Serial LCD Module**
- Power requirement: 5VDC @ 10mA typical (recommend P/N 164101CX, pg 149)
- Module size: 3.9"L x 2.4"W x 0.7"T • Wt.: 0.9 lbs.
- 157323CX: 20x4 Serial LCD Module with keypad Interface**
- Power requirements: 5VDC @ 16mA typical (recommend P/N 164101CX, pg 149)
- Module size: 3.7"L x 2.4"W x 1.1"T • Wt.: 0.6 lbs.

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 150957CX | LCD2041 | \$54.19 | \$52.69 | \$51.19 |
| 157323CX | LK204-25 | 72.95 | 71.15 | 68.99 |

0.6" High 3 1/2-Digit & 4 1/2-Digit LCD Digital Panel Meters



108388CX



175951CX



146835CX

- Input Ranges: 200mV, 20V, 200V, 500V
- Supply voltage: 8-12VDC (recommend 9V battery P/N 151095CX, pg 157)
- Automatic polarity indication
- Input impedance: >100MΩ
- Accuracy: ±0.5% • Size: 2.7"L x 1.7"W



123140CX

146835CX: Backlit display

Includes: Bezel

| Part No. | Product No. | Digits | 1 | 10 | 25 |
|----------|-------------|--------|---------|---------|---------|
| 108388CX | PM-428 | 3 1/2 | \$12.95 | \$11.95 | \$10.95 |
| 175951CX | PM-128 | 3 1/2 | 12.95 | 11.95 | 10.95 |
| 146835CX | PM-188BL | 3 1/2 | 19.95 | 17.99 | 16.19 |
| 123140CX | PM-328 | 4 1/2 | 27.95 | 24.95 | 22.49 |



Serial Graphics LCD Display

40 characters x 8 lines Maximum

- 40 characters x 8 lines max. display with 5 x 7 font
- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature
- Pixel layout: 240 x 64 pixels
- Serial input: 1200-19,200bps (jumper configurable)
- Backlight supply current: 160mA typical
- Power requirement: 5VDC @ 31mA typical (recommend P/N 164101CX, pg 149)
- Display size: 5.2"L x 1.5"W • Weight: 0.9 lbs.
- Module size: 7.1"L x 2.6"W x 0.7"T



Includes: Manual and software

| Part No. | Product No. | 1 | 10 |
|----------|-------------|----------|----------|
| 174182CX | GLC24064 | \$165.99 | \$161.69 |

VL 0.5" High 4-Digit Field Effect LCD Display

- Compatible with socket P/N 78641CX (2), pg 81
- Pin spacing: 0.1" centers
- 40-pin package (no connector required)
- Size: 2.0"L x 1.2"H x 0.1"D
- Digital multimeters, thermometers, pressure gauges, timers, clocks (12 or 24 hour format) and frequency counters



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 17110CX | 402-DP-RC-S | \$14.95 | \$13.49 | \$12.15 |

See pages 147-152 for our complete selection of Wall Adapters



We'll Send It Today!

Just place your order by 6PM EST for same business day shipment.

16 x 2 Parallel LCD Display with Backlight

- 16 characters x 2 lines
- Character font: 5 x 7 dots
- Input voltage: 5VDC @ 1.6mA
- 14-pin terminal
- 8-bit interface
- Display size: 2.6"L x 0.7"W x 0.4"T
- Module size: 3.3"L x 1.4"W x 0.5"T



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|--------|
| 277384CX | PVC160204A | \$11.85 | \$10.25 | \$8.55 |

16 x 2 Parallel LCD Display with Backlight

- 16 characters x 2 lines
- Character font: 5 x 8 dots
- 14-pin terminal
- Operating input voltage: 5.2V
- Input data: 4-bit or 8-bit interface
- Display size: 3.9"L x 0.9"W x 0.4"T
- Module size: 4.8"L x 1.7"W x 0.5"T



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 277392CX | PVC160205 | \$22.75 | \$19.89 | \$16.59 |

16 x 4 Parallel LCD Display

- 16 characters x 4 lines
- 5 x 8 dot matrix
- 4-bit or 8-bit parallel interface
- Clear/reflective type LCD display
- Control LSI HD44780 or equivalent and column driver MSM5259 or equivalent
- Display size: 2.4"L x 1.0"H
- Module size: 3.4"L x 2.4"W x 0.3"T



Power requirements: 5VDC @ 2mA max.
(recommend P/N 164101CX, pg 149)

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------------|---------|---------|---------|
| 210761CX | 16 x 4 LCD display .. | \$22.95 | \$19.95 | \$18.69 |

20 x 1 Parallel LCD Display



- Built-in controller: HD44780
- Character font size: 0.45"W x 0.26"H
- Maximum input voltage: 5.5VDC
- 14-pin terminal
- Operating input voltage: 5VDC
- Display size: 6.5"L x 1.3"W
- Module size: 7.2"L x 1.6"W x 0.4"T
- Weight: 0.3 lbs.

Quantity
SAVE

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 206615CX | LCD module | \$19.99 | \$16.99 | \$12.75 |

See pages 38 – 43 for LEDs,
LED Displays, Lamps
and Accessories



Parallel LCD Displays



171715CX

- 8-bit interface data bus
- Controller: KS0066U or equivalent
- Character font size: 0.125"W x 0.200"H
- Maximum input voltage: 5.3VDC
- Operating input voltage: 5VDC (recommend P/N 164101CX, pg 149)

171715CX: 16 Characters x 2 Lines

- Display size: 2.5"L x 0.7"W
- Module size: 3.4"L x 1.2"W x 0.5"T

171723CX: 20 Characters x 2 Lines

- Display size: 3.3"L x 0.7"W
- Module size: 4.6"L x 1.5"W x 0.4"T

| Part No. | Prod. No. | Description | 1 | 10 | 25 |
|----------|-----------|--------------|---------|---------|---------|
| 171715CX | AC162A | 14-pin/term. | \$19.95 | \$17.95 | \$15.95 |
| 171723CX | AC202A | 16-pin/term. | 24.95 | 22.49 | 20.25 |

20 x 4 Parallel LCD Display

- 20 characters x 4 lines
- Character font: 5 x 8 dots
- TN reflective type LCD display
- 16-pin terminal
- 8-bit interface
- Operating input voltage: 5.0V @ 1.6mA
- Display size: 3.0"L x 1.0"W x 0.3"T
- Module size: 3.9"L x 2.4"W x 0.4"T



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 277376CX | PVC200401 | \$23.29 | \$20.19 | \$16.85 |

40 x 2 Parallel LCD Display with Backlight



- 40 characters x 2 lines
- Control chip HCD44780
- Character font: 5 x 8 dots
- Column driver: KS0063B
- Backlight: yellow-green
- Supply voltage (logic): 5VDC @ 5mA
- Display size: 5.81"L x 0.45"W
- Module size: 7.2"L x 1.4"W x 0.4" Thick

New Lower
Prices

Quantity
SAVE

| Part No. | Description | 1 | 10 | 25 |
|----------|------------------------|---------|---------|---------|
| 215159CX | 40 x 2 parallel LCD .. | \$29.99 | \$25.49 | \$18.95 |

30-Day Money-Back Guarantee

If you're not completely
satisfied with your purchase,
we'll take it back!

Details on page 241.

40 x 2 Parallel LCD Display with Backlight



- 40 characters x 2 lines
- Character font: 5 x 8 dots
- Character color: dark blue
- Backlight color: yellow green
- Input data: 8-bit data interface
- Module size: 7.2"L x 1.3"W x 0.6"T
- Display size: 6.0"L x 0.6"W x 0.2"T

OCULAR

Quantity
SAVE

Requires: 5V @ 2.5mA (recommend P/N 164101CX, pg 149)

| Part No. | Product No. | 1 | 10 | 25 |
|----------|---------------|---------|---------|---------|
| 277325CX | OM4021-WGS-01 | \$24.95 | \$21.25 | \$15.95 |

40 x 4 Parallel LCD Display with Backlight



- 40 characters x 4 lines
- Character font: 5 x 7 dots
- LCD Type and color STN + gray
- Transflective backlight LED (yellow-green color)
- 8-bit interface
- Display size: 5.9"L x 1.2"W x 0.4"T
- Module size: 7.5"L x 2.1"W x 0.6"T

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 277253CX | EW40420GLY | \$42.39 | \$38.79 | \$34.95 |

128 x 128 Dot Parallel Graphic LCD Display

- 128 x 128 dot graphic display
- Dot size/pitch: 0.01"/0.02"
- 18-pin terminal
- Input voltage: 5V
- 8-bit interface
- Display size: 2.7"L x 2.7"W x 0.24"T
- Module size: 3.5"L x 3.5"W x 0.4"T



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 277333CX | PG121202A | \$45.29 | \$41.25 | \$37.15 |

240 x 64 Dot Parallel Graphic Display



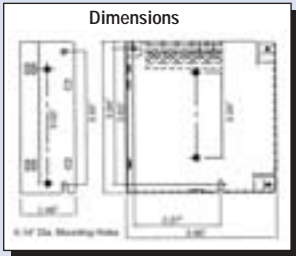
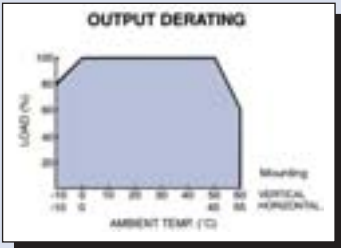
- 240 x 64 dot graphic display
- Dot size/pitch: 0.02"/0.021"
- 22-pin terminal
- Input voltage: 5V @ 6mA
- 8-bit interface
- Display size: 5.2"L x 1.5"W x 0.2"T
- Module size: 7.1"L x 2.6"W x 0.4"T

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 277350CX | PVG240602A | \$61.95 | \$56.75 | \$46.85 |

25-Watt Enclosed
S-25 Series: Single Output

- 100% full-load burn-in
- Universal AC input
- No minimum load required
- 1.2 watts/in³ maximum
- 105°C output capacitor
- Two-year warranty
- Mating connector: 103587CX, pg 65
- -10°C to +60°C working temp. (see output derating)
- Mounting hardware: use P/Ns 222121CX, 222156CX, 222172CX & 222164CX; see www.Jameco.com for specifications

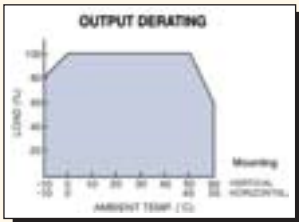
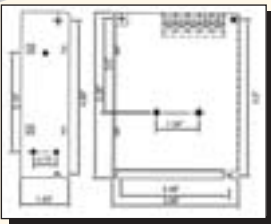
Highlighted below in blue, the Mean Well S-25 series are low-cost, high-quality enclosed switchers that feature universal input of 85 to 264VAC, as well as 120 to 370VDC for battery-supported applications. Full rated power is available with free-air convection cooling. Protections include short-circuit, over-voltage and overload with auto-recovery. They are approved by UL and TUV, and carry the CE mark for use worldwide.



40-Watt Enclosed
S-40 & T-40 Series: Single & Triple Output

- 100% full-load burn-in
- Universal AC input
- 105°C output capacitor
- 1.6 watts/in³ max.
- Two-year warranty
- Mating connector: P/N 103587CX, pg 65
- -10°C to +60°C working temperature (see output derating)
- Mounting hardware: use P/Ns 222121CX, 222156CX & 222172CX; see www.Jameco.com for specifications

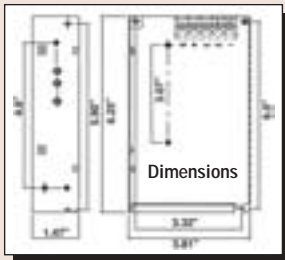
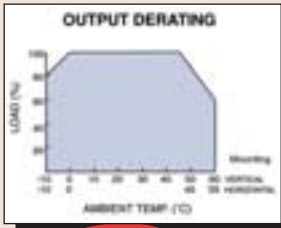
Highlighted in buff color below, the S-40 and T-40 series from Mean Well derive their impressive reliability from a conservative design, the exclusive use of high-quality components, and assured to operate correctly anywhere in the world. These switchers feature universal input voltage ranges of 85-264VAC and 120-370VDC. Protection includes short-circuit, overload and over-voltage; and a novel soft-start circuit limits the AC surge current. Manufacturer guaranteed safety standards comprise UL1012, UL1950 and TUV EN60950; and these products have earned the European CE mark.



60-Watt Enclosed
S-60, D-60, T-60 & Q-60 Series: Single, Dual, Triple & Quad Outputs

- 100% full-load burn-in
- Universal AC input
- 105°C output capacitor
- 1.7 watts/in³ maximum
- Two-year warranty
- Mating connector: P/N 103587CX, pg 65
- -10°C to +60°C working temperature (see output derating)
- Mounting hardware: use P/Ns 222130CX, 222156CX & 222172CX; see www.Jameco.com for specifications

Highlighted in tan, these highly popular series have long been among Mean Well's most requested products. The solid, reliable, low-cost design features overload protection to 150% of rated load with auto-recovery, and over-voltage protection to 135% of rated output voltage. Input AC surge current is limited to a safe level by a novel soft-start circuit. Working temperature is -10°C to 60°C, with derating below 0°C and above 45°C. Safety standards include UL1012, UL1950, IEC950 and TUV EN60950, and these products all carry the European CE mark. The DC output voltage can be adjusted ±10% of nominal rating.



Open-Frame Power Supplies on pages 130-137.

Open-Frame Power Supplies on pages 130-137.

| | Jameco | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | Power Density (W/in²) | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | | Line Reg. (±%)* | Inrush Curr. (A@ 120VAC) | Isolation Voltage (VAC) | Leakage Current (mA@240V) | Rise Time (ms) | Hold-up Time (ms) | Vibration | Voltage Adjustment (%)* | Efficiency (%) | Weight (lbs.) | Certification | Jameco Part No. | Price | | | | | |
|----------|-----------|--------------|--|--|----------------|---------------------|-----------------------------|--------------------------------|-----------------------|-----|-----------------------|--------------------------------|-------------------------------|---------------------------------|----------------------|-------------------------|--------------|-------------------------------|-------------------|------------------|---------------|--------------------|---------------------------|---------|---------|----------|----|----|
| | Part No. | | | Manufacturer | Product Number | | | | | | | | | | | | | | | | | | Voltage@Current (min-max) | Power | 1 | | 10 | 25 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Enclosed | 123246CX | Mean Well | S-25-5 | +5V@0-5A | 25.0W | 85-264@47-63 | 1.17 | 50 | 1.0 | ↔ | 0.5 | 15 | 3,000 | 0.75 | 50 | 10 | 10-500Hz, 2G | 10 | 72 | 0.8 | UL/TUV/CE | 123246CX | \$39.95 | \$32.10 | \$28.90 | Enclosed | | |
| | 123254CX | Mean Well | S-25-12 | +12V@0-2.1A | 25.2W | 85-264@47-63 | 1.18 | 100 | 0.5 | | 0.5 | 15 | 3,000 | 0.75 | 50 | 10 | 10-500Hz, 2G | 10 | 76 | 0.8 | UL/TUV/CE | 123254CX | 39.95 | 32.10 | 28.90 | | | |
| | 123262CX | Mean Well | S-25-15 | +15V@0-1.7A | 25.5W | 85-264@47-63 | 1.20 | 100 | 0.5 | | 0.5 | 15 | 3,000 | 0.75 | 50 | 10 | 10-500Hz, 2G | 10 | 77 | 0.8 | UL/TUV/CE | 123262CX | 39.95 | 32.10 | 28.90 | | | |
| | 123271CX | Mean Well | S-25-24 | +24V@0-1.1A | 26.4W | 85-264@47-63 | 1.24 | 100 | 0.5 | | 0.5 | 15 | 3,000 | 0.75 | 50 | 10 | 10-500Hz, 2G | 10 | 80 | 0.8 | UL/TUV/CE | 123271CX | 39.95 | 32.10 | 28.90 | | | |
| | 123289CX | Mean Well | S-40-5 | +5V@0-8A | 40.0W | 85-264@47-63 | 1.34 | 75 | 1.0 | ↔ | 0.5 | 60 | 3,000 | 1.0 | 50 | 15 | 10-500Hz, 2G | 10 | 72 | 1.0 | UL/CUL/TUV/CE | 123289CX | 44.95 | 38.60 | 34.70 | | | |
| | 123297CX | Mean Well | S-40-12 | +12V@0-3.5A | 42.0W | 85-264@47-63 | 1.41 | 100 | 0.5 | | 0.5 | 30 | 3,000 | 1.0 | 50 | 15 | 10-500Hz, 2G | 10 | 76 | 1.0 | UL/CUL/TUV/CE | 123297CX | 44.95 | 38.60 | 34.70 | | | |
| | 202139CX | Mean Well | S-40-15 | +15V@0-2.8A | 42.0W | 85-264@47-63 | 1.41 | 100 | 0.5 | | 0.5 | 30 | 3,000 | 1.0 | 50 | 15 | 10-500Hz, 2G | 10 | 76 | 1.0 | UL/CUL/TUV/CE | 202139CX | 44.95 | 38.60 | 34.70 | | | |
| | 123318CX | Mean Well | S-40-24 | +24V@0-1.8A | 43.0W | 85-264@47-63 | 1.44 | 100 | 0.5 | | 0.5 | 30 | 3,000 | 1.0 | 50 | 15 | 10-500Hz, 2G | 10 | 78 | 1.0 | UL/CUL/TUV/CE | 123318CX | 44.95 | 38.60 | 34.70 | | | |
| | 201988CX | Mean Well | T-40A | +5V@0.6-3A; +12V@0.2-2A; -5V@0.1-0.5A | 41.5W | 85-264@47-63 | 1.43 | 100 | 0.5 | ↔ | 0.5 | 20 | 3,000 | 3.5 | 50 | 16 | 10-500Hz, 2G | 10 | 72 | 1.0 | UL/CUL/CE | 201988CX | 49.95 | 42.10 | 37.90 | | | |
| | 201996CX | Mean Well | T-40B | +5V@0.6-3A; +12V@0.2-2A; -12V@0.1-0.5A | 45.0W | 85-264@47-63 | 1.55 | 100 | 0.5 | | 0.5 | 20 | 3,000 | 3.5 | 50 | 16 | 10-500Hz, 2G | 10 | 72 | 1.0 | UL/CUL/CE | 201996CX | 49.95 | 42.10 | 37.90 | | | |
| | 202008CX | Mean Well | T-40C | +5V@0.6-3A; +15V@0.2-1.5A; -15V@0.1-0.5A | 45.0W | 85-264@47-63 | 1.55 | 100 | 0.5 | | 0.5 | 20 | 3,000 | 3.5 | 50 | 16 | 10-500Hz, 2G | 10 | 72 | 1.0 | UL/CUL/CE | 202008CX | 49.95 | 42.10 | 37.90 | | | |
| | 123326CX | Mean Well | S-60-5 | +5V@0-12A | 60.0W | 85-264@47-63 | 1.67 | 120 | 1.0 | | 0.5 | 30 | 3,000 | 3.5 | 50 | 10 | 10-500Hz, 2G | 10 | 73 | 1.2 | UL/CUL/TUV/CE | 123326CX | 53.95 | 41.50 | 37.30 | | | |
| | 123334CX | Mean Well | S-60-12 | +12V@0-5A | 60.0W | 85-264@47-63 | 1.67 | 120 | 0.5 | ↔ | 0.5 | 30 | 3,000 | 3.5 | 50 | 10 | 10-500Hz, 2G | 10 | 76 | 1.2 | UL/CUL/TUV/CE | 123334CX | 53.95 | 41.50 | 37.30 | | | |
| | 123342CX | Mean Well | S-60-15 | +15V@0-4A | 60.0W | 85-264@47-63 | 1.67 | 150 | 0.5 | | 0.5 | 30 | 3,000 | 3.5 | 50 | 10 | 10-500Hz, 2G | 10 | 77 | 1.2 | UL/CUL/TUV/CE | 123342CX | 53.95 | 41.50 | 37.30 | | | |
| | 123351CX | Mean Well | S-60-24 | +24V@0-2.5A | 60.0W | 85-264@47-63 | 1.67 | 150 | 0.5 | | 0.5 | 30 | 3,000 | 3.5 | 50 | 10 | 10-500Hz, 2G | 10 | 79 | 1.2 | UL/CUL/TUV/CE | 123351CX | 53.95 | 41.50 | 37.30 | | | |
| | 123457CX | Mean Well | D-60A | +5V@0.3-4A; +12V@0.2-3A | 56.0W | 85-264@47-63 | 1.56 | 75 | 0.5 | | 0.5 | 30 | 3,000 | 1.0 | 50 | 10 | 10-500Hz, 2G | 10 | 73 | 1.2 | UL/CUL/TUV/CE | 123457CX | 54.95 | 44.10 | 39.70 | | | |
| | 123465CX | Mean Well | D-60B | +5V@0.3-3A; +24V@0.2-1.8A | 58.0W | 85-264@47-63 | 1.62 | 75 | 0.5 | ↔ | 0.5 | 30 | 3,000 | 1.0 | 50 | 10 | 10-500Hz, 2G | 10 | 76 | 1.2 | UL/CUL/TUV/CE | 123465CX | 54.95 | 44.10 | 39.70 | | | |
| | 123473CX | Mean Well | T-60A | +5V@0.5-5A; +12V@0.2-2.5A; -5V@0-0.5A | 57.5W | 85-264@47-63 | 1.60 | 100 | 1.0 | | 0.5 | 30 | 3,000 | 1.0 | 50 | 10 | 10-500Hz, 2G | 10 | 72 | 1.2 | UL/CUL/TUV/CE | 123473CX | 57.95 | 47.00 | 42.30 | | | |
| | 123481CX | Mean Well | T-60B | +5V@0.5-5A; +12V@0.2-2.5A; -12V@0-0.5A | 61.0W | 85-264@47-63 | 1.70 | 100 | 1.0 | | 0.5 | 30 | 3,000 | 1.0 | 50 | 10 | 10-500Hz, 2G | 10 | 72 | 1.2 | UL/CUL/TUV/CE | 123481CX | 57.95 | 47.00 | 42.30 | | | |
| | 123490CX | Mean Well | T-60C | +5V@0.5-5A; +15V@0.2-2A; -15V@0-0.5A | 62.5W | 85-264@47-63 | 1.61 | 100 | 1.0 | | 0.5 | 30 | 3,000 | 1.0 | 50 | 10 | 10-500Hz, 2G | 10 | 72 | 1.2 | UL/CUL/TUV/CE | 123490CX | 57.95 | 47.00 | 42.30 | | | |
| 147045CX | Mean Well | Q-60B | +5V@0.5-5.5A; +12V@0.1-2A; -5V@0-0.5A; -12V@0-0.5A | 60.0W | 85-264@47-63 | 1.63 | 100 | 0.5 | ↔ | 0.5 | 18 | 3,000 | 1.0 | 20 | 12 | 10-500Hz, 2G | 10 | 70 | 1.2 | UL/CUL | 147045CX | 59.95 | 49.90 | 44.90 | | | | |

* Primary Output

Quantity

SAVE

SALE

Special Offers at Great Savings – 90-Day Warranty

Quantity

SAVE

| Enclosed | Jameco Part No. | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | Size Inches (LxWxH) | Mounting Holes Inches (LxWxDia.) | Power Density (W/in³) | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | ↔ | Line Reg. (±%)* | Inrush Curr. (A@ 120VAC) | Isolation Voltage (VAC) | Leakage Current (mA@240V) | Rise Time (ms) | Hold-up Time (ms) | Vibration | Voltage Adjustment (%)* | Efficiency (%) | Weight (lbs.) | Certification | Jameco Part No. | Price | | | Enclosed |
|----------|-----------------|--------------|-----------------------------|-----------|-------|------------------|---------------------|----------------------------------|-----------------------|--------------------------|-----------------|---|-----------------|--------------------------|-------------------------|---------------------------|----------------|-------------------|-----------|-------------------------|----------------|---------------|---------------|-----------------|----------|--------|--------------|----------|
| | 211115CX | Fortron | SU65P10C | +5V@0-10A | 50.0W | 85-264@47-63 | 6.1x4.2x2.2 | 4.8x3.2x0.17 | 0.87 | 50 | — | | 0.5 | 15 | 3,000 | 0.85 | — | 10 | — | — | 70 | 1.5 | UL/CSA/TUV/CE | 211115CX | 1 | 10 | 25 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 205831CX | Volgen | PRK50U-1515W | |

* Primary Output

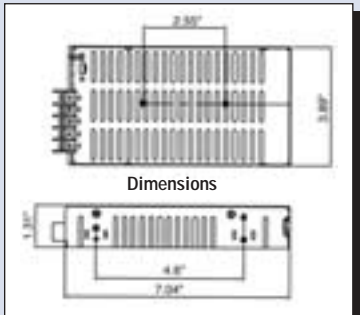
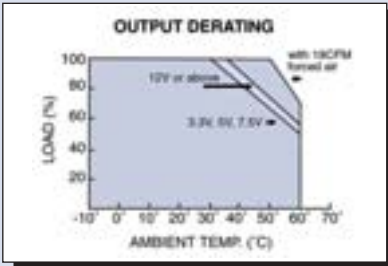
75-Watt Enclosed with Power Factor Correction

SP-75 Series: Single Output

- 100% full-load burn-in
- No minimum load required
- 105°C output capacitor
- Power Factor Correction
- Mating connector: P/N 103587CX, pg 65
- -10°C to +60°C working temp. (see output derating)
- Mounting hardware: use P/Ns 222148CX, 222156CX, 222164CX & 222172CX; see www.Jameco.com for specifications
- Universal AC input
- 2.1 watts/in³ max.
- Three-year warranty



Highlighted in blue below, the Mean Well SP-75 series features input Power Factor Correction that meets EN61000-3-2, required in Europe for power supplies 75 watts and above. They are approved by UL and TUV, and carry the CE mark for use worldwide. The high-density enclosed packaging results in a profile of only 1.3" and a power density of 2.1 watts per inch³. As with all Mean Well power products, every SP-75 product is subjected to 100% full-load burn-in testing. This rigorous production procedure detects infant product failures, contributing to Mean Well's world-class reliability. Protection includes short-circuit, overload and over-voltage.



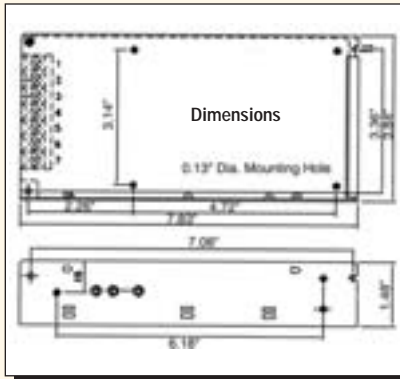
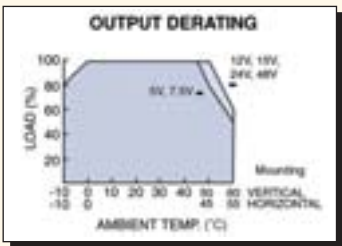
100-Watt Enclosed

S-100F Series: Single Output

- 100% full-load burn-in
- No minimum load required
- 105°C output capacitor
- Mating connector: P/N 103587CX, pg 65
- -10°C to +60°C working temp. (see output derating)
- Mounting hardware: use P/Ns 222130CX, 222156CX and 222172CX; see www.Jameco.com for specs
- 2.3 watts/in³ max.
- Two-year warranty



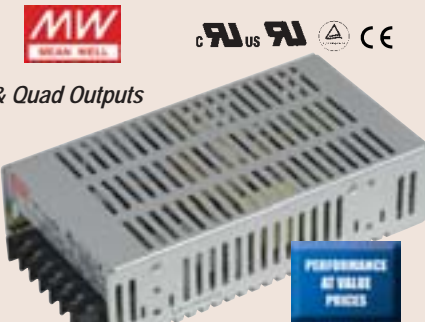
Highlighted below in buff color and surprisingly inexpensive for its capabilities, the S-100F series is one of Mean Well's most successful enclosed power supplies. With only free-air convection, the 100-watt rated power is available from 0°C to 50°C ambient temp. Protection includes short-circuit, overload and over-voltage. A novel soft-start circuit limits the AC surge current to a safe value. Guaranteed safety standards comprise UL1012, UL1950 and TUV EN60950; and these products have earned the European CE mark.



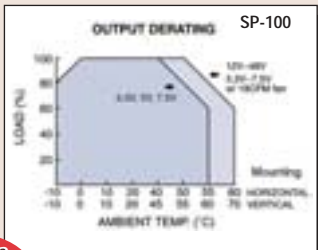
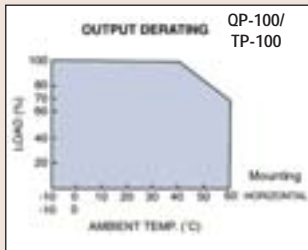
100-Watt Enclosed
With Power Factor Correction

SP-100, TP-100 & QP-100 Series: Single, Triple & Quad Outputs

- 100% full-load burn-in
- 2.3 watts/in³ maximum
- 105°C output capacitor
- Mating connector: P/N 103587CX, pg 65
- -10°C to +60°C working temp. (see output derating)
- Mounting hardware use P/Ns 222130CX, 222164CX, 222156CX, 222172CX & 222181CX; see www.Jameco.com for specifications
- Universal AC input
- Power Factor Correction
- Three-year warranty



Highlighted below in tan, this Mean Well family of 100-watt enclosed switchers feature input Power Factor Correction of 0.98 at 115VAC that complies with EN61000-3-2, required in Europe for power supplies 75 watts and above. They are approved by UL and TUV, and carry the CE mark, for use worldwide. The high-density enclosed packaging results in a profile of only 1.8" and a power density of 2.0 watts per inch³. As with all Mean Well products, all SP-100, TP-100 and QP-100 products are subject to 100% full-load burn-in testing. This rigorous production procedure detects infant product failures, contributing to Mean Well's world-class reliability. Protection includes short-circuit, overload & over-voltage.



Open-Frame Power Supplies on pages 130-137.

New Lower Prices

SALE

| | | Prices | | Output | | Input | | Size | | Mounting | | Power | | Ripple & Noise | | Load | | Line | | Inrush | | Isolation | | Leakage | | Rise | | Hold-up | | Voltage | | Efficiency | | Weight | | Certification | | Jameco | | Price | | | | | | | | | | |
|----------|-----------|--------------|---|----------------|--------------|---------------------------|--------------------|--------------------|-------------|----------|-----|-------|----|----------------|-----|-------------------------|-----|-----------------|----|--------------|-----|---------------|----------|---------------|----------|-------------------|---------|-----------|----------|-----------|--|------------------|--|--------|--|---------------|--|---------------|--|----------|--|---|--|--|----|--|--|----|--|--|
| | | Manufacturer | | Product Number | | Voltage@Current (min-max) | | Power | | VAC @ Hz | | PFC | | Inches (LxWxH) | | Holes Inches (LxWxDia.) | | Density (W/in²) | | mV p-p)* | | Reg. (±%)* | | Voltage (VAC) | | Current (mA@240V) | | Time (ms) | | Time (ms) | | Adjustment (%)*) | | (%) | | (lbs.) | | UL/CUL/TUV/CE | | Part No. | | 1 | | | 10 | | | 25 | | |
| Enclosed | 194829CX | Mean Well | SP75-5 | +5V@0-15A | 75.0W | 85-264@47-63 | ✓ | see diagram | see diagram | 2.11 | 80 | 1.0 | ↔ | 0.5 | 40 | 3,000 | 2.0 | 60 | 20 | 10-500Hz: 2G | 10 | 72 | 1.2 | UL/CUL/TUV/CE | 194829CX | \$65.49 | \$55.49 | \$48.99 | Enclosed | | | | | | | | | | | | | | | | | | | | | |
| | 194837CX | Mean Well | SP75-12 | +12V@0-6.3A | 75.6W | 85-264@47-63 | ✓ | see diagram | see diagram | 2.13 | 80 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 60 | 20 | 10-500Hz: 2G | 10 | 77 | 1.2 | UL/CUL/TUV/CE | 194837CX | 69.95 | 61.05 | 53.89 | | | | | | | | | | | | | | | | | | | | | | |
| | 194845CX | Mean Well | SP75-15 | +15V@0-5A | 75.0W | 85-264@47-63 | ✓ | see diagram | see diagram | 2.11 | 80 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 60 | 20 | 10-500Hz: 2G | 10 | 79 | 1.2 | UL/CUL/TUV/CE | 194845CX | 69.95 | 61.05 | 53.89 | | | | | | | | | | | | | | | | | | | | | | |
| | 194853CX | Mean Well | SP75-24 | +24V@0-3.2A | 76.8W | 85-264@47-63 | ✓ | see diagram | see diagram | 2.16 | 100 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 60 | 20 | 10-500Hz: 2G | 10 | 80 | 1.2 | UL/CUL/TUV/CE | 194853CX | 69.95 | 61.05 | 53.89 | | | | | | | | | | | | | | | | | | | | | | |
| | 216805CX | Mean Well | SP75-48 | +48V@0-1.6A | 76.8W | 85-264@47-63 | ✓ | see diagram | see diagram | 2.16 | 100 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 60 | 20 | 10-500Hz: 2G | 10 | 80 | 1.2 | UL/CUL/TUV/CE | 216805CX | 69.95 | 61.05 | 53.89 | | | | | | | | | | | | | | | | | | | | | | |
| | 201961CX | Mean Well | S-100F-5 | +5V@0-20A | 100.0W | 88-132/176-264@47-63 | — | see diagram | see diagram | 2.19 | 100 | 1.0 | ↔ | 0.5 | 30 | 3,000 | 1.0 | 30 | 15 | 10-500Hz: 2G | 10 | 76 | 1.4 | UL/TUV/CE | 201961CX | 66.95 | 49.90 | 44.90 | | | | | | | | | | | | | | | | | | | | | | |
| | 123385CX | Mean Well | S-100F-12 | +12V@0-8.5A | 102.0W | 88-132/176-264@47-63 | — | see diagram | see diagram | 2.24 | 125 | 0.5 | | 0.5 | 30 | 3,000 | 1.0 | 30 | 15 | 10-500Hz: 2G | 10 | 80 | 1.4 | UL/TUV/CE | 123385CX | 66.95 | 49.90 | 44.90 | | | | | | | | | | | | | | | | | | | | | | |
| | 212450CX | Mean Well | S-100F-15 | +15V@0-6.7A | 100.5W | 88-132/176-264@47-63 | — | see diagram | see diagram | 2.20 | 125 | 0.5 | | 0.5 | 30 | 3,000 | 1.0 | 30 | 15 | 10-500Hz: 2G | 10 | 81 | 1.4 | UL/TUV/CE | 212450CX | 66.95 | 49.90 | 44.90 | | | | | | | | | | | | | | | | | | | | | | |
| | 201970CX | Mean Well | S-100F-24 | +24V@0-4.5A | 108.0W | 88-132/176-264@47-63 | — | see diagram | see diagram | 2.37 | 150 | 0.5 | | 0.5 | 30 | 3,000 | 1.0 | 30 | 15 | 10-500Hz: 2G | 10 | 83 | 1.4 | UL/TUV/CE | 201970CX | 66.95 | 49.90 | 44.90 | | | | | | | | | | | | | | | | | | | | | | |
| | 216792CX | Mean Well | S-100F-48 | +48V@0-2.2A | 105.6W | 88-132/176-264@47-63 | — | see diagram | see diagram | 2.31 | 150 | 0.5 | | 0.5 | 30 | 3,000 | 1.0 | 30 | 15 | 10-500Hz: 2G | 10 | 84 | 1.4 | UL/TUV/CE | 216792CX | 66.95 | 49.90 | 44.90 | | | | | | | | | | | | | | | | | | | | | | |
| | 212441CX | Mean Well | SP100-3.3 | +3.3V@0-20A | 66.0W | 86-264@47-63 | ✓ | see www.Jameco.com | see diagram | 1.48 | 100 | 1.0 | ↔ | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz: 2G | 10 | 70 | 1.3 | UL/CUL/TUV/CE | 212441CX | 55.00 | 47.49 | 43.19 | | 39.25 | | | | | | | | | | | | | | | | | | | | |
| | 194790CX | Mean Well | SP100-5 | +5V@0-20A | 100.0W | 86-264@47-63 | ✓ | see www.Jameco.com | see diagram | 2.24 | 100 | 1.0 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz: 2G | 10 | 76 | 1.3 | UL/CUL/TUV/CE | 194790CX | 81.95 | 79.70 | 71.70 | | | | | | | | | | | | | | | | | | | | | | |
| | 194802CX | Mean Well | SP100-12 | +12V@0-8.5A | 102.0W | 86-264@47-63 | ✓ | see www.Jameco.com | see diagram | 2.29 | 100 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz: 2G | 10 | 80 | 1.3 | UL/CUL/TUV/CE | 194802CX | 81.95 | 79.70 | 71.70 | | | | | | | | | | | | | | | | | | | | | | |
| | 212433CX | Mean Well | SP100-15 | +15V@0-6.7A | 100.5W | 86-264@47-63 | ✓ | see www.Jameco.com | see diagram | 2.25 | 100 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz: 2G | 10 | 82 | 1.3 | UL/CUL/TUV/CE | 212433CX | 69.95 | 62.99 | 56.69 | | | | | | | | | | | | | | | | | | | | | | |
| | 194811CX | Mean Well | SP100-24 | +24V@0-4.2A | 100.8W | 86-264@47-63 | ✓ | see www.Jameco.com | see diagram | 2.26 | 150 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz: 2G | 10 | 84 | 1.3 | UL/CUL/TUV/CE | 194811CX | 81.95 | 79.70 | 71.70 | | | | | | | | | | | | | | | | | | | | | | |
| 212425CX | Mean Well | SP100-48 | +48V@0-2.1A | 100.8W | 88-264@47-63 | ✓ | see www.Jameco.com | see diagram | 2.26 | 250 | 0.5 | 0.1 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz: 2G | 10 | 82 | 1.3 | UL/CUL/TUV/CE | 212425CX | 81.95 | 79.70 | 71.70 | | | | | | | | | | | | | | | | | | | | | | | | |
| 213794CX | Mean Well | TP-100A | +5V@3-10A; +12V@0.4-4A; -5V@0-0.6A | 101.0W | 90-264@47-63 | ✓ | see www.Jameco.com | see diagram | 1.85 | 100 | 3.0 | 1.0 | 40 | 3,000 | 3.5 | 60 | 20 | 10-500Hz: 2G | 10 | 75 | 1.6 | UL/CUL/TUV/CE | 213794CX | 81.99 | 74.99 | 68.99 | | | | | | | | | | | | | | | | | | | | | | | | |
| 213786CX | Mean Well | TP-100B | +5V@3-10A; +12V@0.4-4A; -12V@0-0.6A | 105.2W | 90-264@47-63 | ✓ | see www.Jameco.com | see diagram | 1.93 | 100 | 3.0 | 1.0 | 40 | 3,000 | 3.5 | 60 | 20 | 10-500Hz: 2G | 10 | 78 | 1.6 | UL/CUL/TUV/CE | 213786CX | 87.29 | 79.35 | 72.14 | | | | | | | | | | | | | | | | | | | | | | | | |
| 213778CX | Mean Well | TP-100C | +5V@3-10A; +15V@0.4-3A; -15V@0-0.6A | 104.0W | 90-264@47-63 | ✓ | see www.Jameco.com | see diagram | 1.90 | 100 | 3.0 | 1.0 | 40 | 3,000 | 3.5 | 60 | 20 | 10-500Hz: 2G | 10 | 77 | 1.6 | UL/CUL/TUV/CE | 213778CX | 81.95 | 79.95 | 89.96 | 80.96 | | | | | | | | | | | | | | | | | | | | | | | |
| 213621CX | Mean Well | QP-100-D | +5V@2-8A; +12V@0-2.4A; +24V@0.3-1A; -12V@0-0.6A | 100.0W | 90-264@47-63 | ✓ | see www.Jameco.com | see diagram | 1.64 | 120 | 2.0 | 1.0 | 40 | 3,000 | 3.5 | 50 | 16 | 10-500Hz: 2G | 10 | 78 | 1.6 | UL/CUL/TUV/CE | 213621CX | 81.95 | 78.99 | 71.79 | 65.29 | | | | | | | | | | | | | | | | | | | | | | | |
| 213612CX | Mean Well | QP-100F | +5V@2-8A; +15V@0-2A; +24V@0.3-1A; -15V@0-0.6A | 103.0W | 90-264@47-63 | ✓ | see www.Jameco.com | see diagram | 1.69 | 120 | 2.0 | 1.0 | 40 | 3,000 | 3.5 | 50 | 16 | 10-500Hz: 2G | 10 | 78 | 1.6 | UL/CUL/TUV/CE | 213612CX | 81.95 | 78.39 | 71.25 | 64.79 | | | | | | | | | | | | | | | | | | | | | | | |

* Primary Output

SALE

Special Offers at Great Savings – 90-Day Warranty

| Jameco Part No. | Mfr. | Manufacturer Product No. | Output | | Input (VAC @ Hz) | PFC | Size Inches (LxWxH) | Mounting Holes Inches (LxWxDia.) | Power Density (W/in²) | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | | Line Reg. (±%)* | Inrush Curr. (A@ 120VAC) | Isolation Voltage (VAC) | Leakage Current (mA@240V) | Rise Time (ms) | Hold-up Time (ms) | Vibration | Voltage Adjustment (%)* | Efficiency (%) | Weight (lbs.) | Certification | Jameco Part No. | Price | | | |
|-----------------|--------|--------------------------|---|-------|------------------|---------------|---------------------|----------------------------------|-----------------------|--------------------------|-----------------|-----|-----------------|--------------------------|-------------------------|---------------------------|----------------|-------------------|-----------|-------------------------|----------------|---------------|---------------|-----------------|----------|----------|---------|---------|
| | | | Voltage@Current (min-max) | Power | | | | | | | | | | | | | | | | | | | | | 1 | 10 | 25 | |
| 205698CX | Volgen | ESK80U-1515 | +5V@10A; +15V@0.8A; -15V@0.8A | | 74.0W | 115/220@50-60 | — | 8.7x5.0x1.5 | — | 1.13 | 50 | 0.8 | ↔ | 0.4 | — | — | — | 200 | — | — | 0.5 | 72 | 1.9 | UL/CSA | 205698CX | \$20.41 | \$18.56 | \$16.87 |
| 205858CX | Volgen | JRK-115B | +5V@4.5A; +15V@3.5A; +24V@0.4A; -5V@1.6A; -15V@1.5A | | 75.0W | 100/240@50-60 | — | 10.5x5.0x2.5 | — | 0.36 | 100 | 0.8 | | 0.4 | 20 | — | — | — | 200 | — | — | — | 75 | 2.4 | — | 205858CX | 19.69 | 17.90 | 16.27 |

* Primary Output

Special Offers at Great Savings – 90-Day Warranty

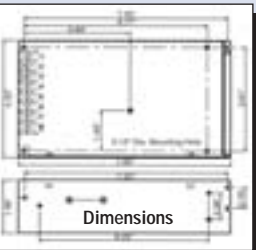
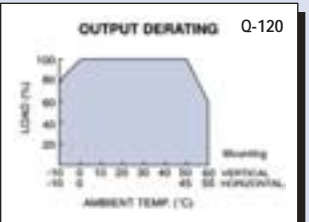
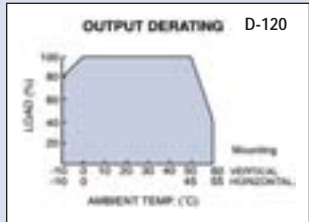
SALE

120-Watt Enclosed

D-120 & Q-120 Series: Dual & Quad Outputs

- 100% full-load burn-in
- 105°C output capacitor
- Mating connector: P/N 103587CX, pg 65
- -10°C to +60°C working temp. (see output derating)
- Mounting hardware: use P/Ns 222130CX, 222156CX and 222172CX; see www.Jameco.com for specifications
- 1.9 watts/in² max.
- Two-year warranty

Highlighted below in blue, the workhorse D-120 and Q-120 have long been amongst the most popular Mean Well series of enclosed switching power supplies. Their efficiency and low working temperature contribute to their very high MTBF of 272,000 hours. Full 120 watts of power is available over the ambient temperature range of 0°C to 50°C. With derating (see below) the range extends to -10°C to 60°C. The solid, reliable, low-cost design features overload protection to 135% of rated load with auto-recovery, and over-voltage protection to 135% of rated output voltage. Additional protection includes short-circuit and a soft-start circuit that limits the AC surge current to a safe value.

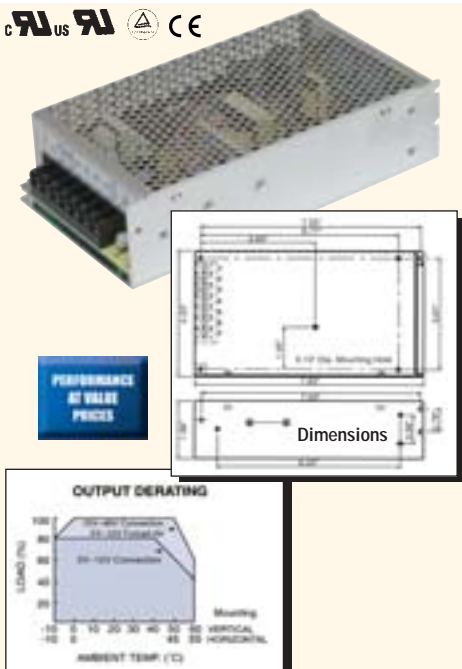


150-Watt Enclosed

S-150 Series: Single Output

- 100% full-load burn-in
- No minimum load required
- 105°C output capacitor
- Mating connector: P/N 103587CX, pg 65
- -10°C to +60°C working temperature (see output derating)
- Mounting hardware: use P/Ns 222130CX, 222156CX & 222172CX; see www.Jameco.com for specifications
- 2.3 watts/in² maximum
- Two-year warranty

Highlighted in buff color below, the highly popular S-150 series from Mean Well derives its impressive reliability from a conservative design, the exclusive use of high-quality components, and 100% full-load burn-in. Assured to operate correctly anywhere in the world, these switchers feature universal voltage input ranges of 85-264VAC and 120-370VDC. Protection includes short-circuit, overload and over-voltage; and a novel soft-start circuit limits the AC surge current. Manufacturer guaranteed safety standards comprise UL1950 and TUV EN60950, and these products have earned the European CE mark. The DC output voltage can be adjusted ±10% of nominal rating.

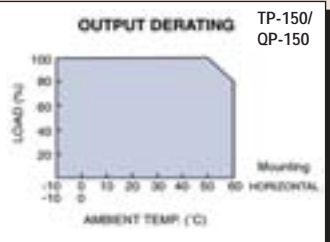
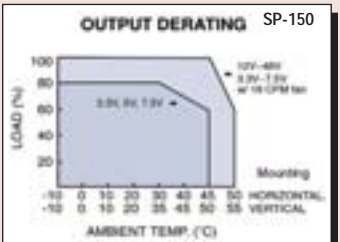


150-Watt Enclosed with Power Factor Correction

SP-150, TP-150 & QP-150 Series: Single, Triple & Quad Outputs

- 100% full-load burn-in
- Power Factor Correction
- 105°C output capacitor
- Mating connector: P/N 103587CX, pg 65
- -10°C to +60°C working temp. (see output derating)
- Mounting hardware: use P/Ns 222130CX, 222156CX, 222164CX, 222181CX & 222172CX; see www.Jameco.com for specifications
- Universal AC input
- 2.8 watts/in² maximum
- Three-year warranty

Detailed below in tan, these advanced switchers are part of Mean Well's family of premium power supplies that carry an unusually long three-year manufacturer's warranty. Their performance, reliability and low cost result from a modern state-of-the-art design using integrated components. The SP-150, TP-150 and QP-150 offer input Power Factor Correction that meets EN61000-3-2. These enclosed switchers feature universal voltage input ranges of 85-264VAC and 120-370VDC. These products are approved by UL, CUL and TUV, and carry the CE mark, for use worldwide. EMC standards met are EN55022 Class B and EN61000-4-2/3/4/5/6/8/11.



Open-Frame Power Supplies
on pages 130-137.

SALE

| | Jameco Part No. | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | PFC | Size Inches (LxWxH) | Mounting Holes Inches (LxWxDia.) | Power Density (W/in²) | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | | Line Reg. (±%)* | Inrush Curr. (A@ 120VAC) | Isolation Voltage (VAC) | Leakage Current (mA@240V) | Rise Time (ms) | Hold-up Time (ms) | Vibration | Voltage Adjustment (%)* | Efficiency (%) | Weight (lbs.) | Certification | Jameco Part No. | Price | | |
|----------|-----------------|--------------|---|---|--------------|----------------------|--------------------|---------------------|----------------------------------|-----------------------|--------------------------|-----------------|-----|-----------------|--------------------------|-------------------------|---------------------------|----------------|-------------------|--------------|-------------------------|----------------|---------------|---------------|-----------------|---------|---------|---------|
| | | | | Voltage@Current (min-max) | Power | | | | | | | | | | | | | | | | | | | | | 1 | 10 | 25 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Enclosed | 132409CX | Mean Well | D-120A | 5V@2-12A; 12V@0.5-5A | 120.0W | 88-132/176-264@47-63 | — | see diagram | see diagram | 1.79 | 60 | 0.5 | | 0.5 | 35 | 3,000 | 3.5 | 50 | 20 | 10-500Hz; 2G | 10 | 78 | 1.9 | UL/CUL/TUV/CE | 132409CX | \$69.95 | \$58.29 | \$51.69 |
| | 132396CX | Mean Well | D-120B | 5V@2-6A; 24V@0.4-4A | 126.0W | 88-132/176-264@47-63 | — | see diagram | see diagram | 1.88 | 60 | 0.5 | | 0.5 | 35 | 3,000 | 3.5 | 50 | 20 | 10-500Hz; 2G | 10 | 80 | 1.9 | UL/CUL/TUV/CE | 132396CX | 69.95 | 58.29 | 51.69 |
| | 132388CX | Mean Well | Q-120B | 5V@2-11A; -5V@0.2-1A; 12V@0.5-4A; -12V@0.2-1A | 120.0W | 88-132/176-264@47-63 | — | see diagram | see diagram | 1.79 | 80 | 0.5 | | 0.5 | 35 | 3,000 | 3.5 | 50 | 20 | 10-500Hz; 2G | 10 | 77 | 1.9 | UL/CUL/TUV/CE | 132388CX | 79.95 | 63.79 | 56.09 |
| | 132370CX | Mean Well | Q-120D | 5V@2-8A; 24V@0.2-2A; 12V@0.2-2A; -12V@0.2-1A | 124.0W | 88-132/176-264@47-63 | — | see diagram | see diagram | 1.85 | 80 | 0.5 | ↔ | 0.5 | 35 | 3,000 | 3.5 | 50 | 20 | 10-500Hz; 2G | 10 | 80 | 1.9 | UL/CUL/TUV/CE | 132370CX | 79.95 | 63.79 | 56.09 |
| | 123393CX | Mean Well | S-150-5 | 5V@0-30A | 150.0W | 88-132/176-264@47-63 | — | see diagram | see diagram | 2.24 | 150 | 0.5 | | 0.5 | 35 | 3,000 | 3.5 | 50 | 20 | 10-500Hz; 2G | 10 | 78 | 1.8 | UL/CUL/TUV/CE | 123393CX | 69.95 | 58.30 | 52.50 |
| | 123414CX | Mean Well | S-150-7.5 | 7.5V@0-20A | 150.0W | 88-132/176-264@47-63 | — | see diagram | see diagram | 2.24 | 150 | 0.5 | | 0.5 | 35 | 3,000 | 3.5 | 50 | 20 | 10-500Hz; 2G | 10 | 80 | 1.8 | UL/CUL/TUV/CE | 123414CX | 69.95 | 58.30 | 52.50 |
| | 123422CX | Mean Well | S-150-12 | 12V@0-12.5A | 150.0W | 88-132/176-264@47-63 | — | see diagram | see diagram | 2.24 | 180 | 0.3 | | 0.3 | 35 | 3,000 | 3.5 | 50 | 20 | 10-500Hz; 2G | 10 | 82 | 1.8 | UL/CUL/TUV/CE | 123422CX | 69.95 | 58.30 | 52.50 |
| | 202024CX | Mean Well | S-150-13.5 | 13.5V@0-11.2A | 151.2W | 88-132/176-264@47-63 | — | see diagram | see diagram | 2.25 | 180 | 0.3 | | 0.3 | 35 | 3,000 | 3.5 | 50 | 20 | 10-500Hz; 2G | 10 | 83 | 1.8 | UL/CUL/TUV/CE | 202024CX | 69.95 | 58.30 | 52.50 |
| | 123431CX | Mean Well | S-150-15 | 15V@0-10A | 150.0W | 88-132/176-264@47-63 | — | see diagram | see diagram | 2.24 | 180 | 0.3 | | 0.3 | 35 | 3,000 | 3.5 | 50 | 20 | 10-500Hz; 2G | 10 | 84 | 1.8 | UL/CUL/TUV/CE | 123431CX | 69.95 | 58.30 | 52.50 |
| | 123449CX | Mean Well | S-150-24 | 24V@0-6.5A | 156.0W | 88-132/176-264@47-63 | — | see diagram | see diagram | 2.33 | 240 | 0.2 | | 0.2 | 35 | 3,000 | 3.5 | 50 | 20 | 10-500Hz; 2G | 10 | 85 | 1.8 | UL/CUL/TUV/CE | 123449CX | 69.95 | 58.30 | 52.50 |
| | 202032CX | Mean Well | S-150-27 | 27V@0-5.6A | 151.2W | 88-132/176-264@47-63 | — | see diagram | see diagram | 2.25 | 240 | 0.2 | | 0.2 | 35 | 3,000 | 3.5 | 50 | 20 | 10-500Hz; 2G | 10 | 86 | 1.8 | UL/CUL/TUV/CE | 202032CX | 69.95 | 58.30 | 52.50 |
| | 167345CX | Mean Well | S-150-48 | 48V@0-3.2A | 153.6W | 88-132/176-264@47-63 | — | see diagram | see diagram | 2.29 | 240 | 0.2 | | 0.2 | 35 | 3,000 | 3.5 | 50 | 20 | 10-500Hz; 2G | 10 | 87 | 1.8 | UL/CUL/TUV/CE | 167345CX | 69.95 | 58.30 | 52.50 |
| | 201902CX | Mean Well | SP-150-3.3 | 3.3V@0-30A | 99.0W | 85-264@47-63 | ✓ | see www.Jameco.com | | 1.63 | 100 | 1.0 | ↔ | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz; 2G | 10 | 67 | 1.7 | UL/CUL/TUV/CE | 201902CX | 91.95 | 82.76 | 74.48 |
| | 201911CX | Mean Well | SP-150-5 | 5V@0-30A | 150.0W | 85-264@47-63 | ✓ | see www.Jameco.com | | 2.47 | 100 | 1.0 | ↔ | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz; 2G | 10 | 75 | 1.7 | UL/CUL/TUV/CE | 201911CX | 91.95 | 82.76 | 74.48 |
| | 173420CX | Mean Well | SP-150-12 | 12V@0-12.5A | 150.0W | 85-264@47-63 | ✓ | see www.Jameco.com | | 2.47 | 100 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz; 2G | 10 | 80 | 1.7 | UL/CUL/TUV/CE | 173420CX | 91.95 | 82.76 | 74.48 |
| | 173411CX | Mean Well | SP-150-15 | 15V@0-10A | 150.0W | 85-264@47-63 | ✓ | see www.Jameco.com | | 2.47 | 100 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz; 2G | 10 | 81 | 1.7 | UL/CUL/TUV/CE | 173411CX | 91.95 | 82.76 | 74.48 |
| | 173403CX | Mean Well | SP-150-24 | 24V@0-6.3A | 150.0W | 85-264@47-63 | ✓ | see www.Jameco.com | | 2.47 | 150 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz; 2G | 10 | 83 | 1.7 | UL/CUL/TUV/CE | 173403CX | 91.95 | 82.76 | 74.48 |
| | 201929CX | Mean Well | SP-150-48 | 48V@0-3.2A | 153.6W | 85-264@47-63 | ✓ | see www.Jameco.com | | 2.52 | 250 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz; 2G | 10 | 84 | 1.7 | UL/CUL/TUV/CE | 201929CX | 91.95 | 82.76 | 74.48 |
| | 213858CX | Mean Well | TP-150A | 5V@2-15A; 12V@0.4-6A; -5V@0-0.6A | 150.0W | 90-264@47-63 | ✓ | see www.Jameco.com | | 2.75 | 100 | 3.0 | | 1.0 | 45 | 3,000 | 3.5 | 60 | 20 | 10-500Hz; 2G | 10 | 75 | 1.8 | UL/CUL/TUV/CE | 213858CX | 93.25 | 83.89 | 75.50 |
| | 213840CX | Mean Well | TP-150B | 5V@2-15A; 12V@0.4-5.5A; -12V@0-0.6A | 148.2W | 90-264@47-63 | ✓ | see www.Jameco.com | | 2.71 | 100 | 3.0 | | 1.0 | 45 | 3,000 | 3.5 | 60 | 20 | 10-500Hz; 2G | 10 | 77 | 1.8 | UL/CUL/TUV/CE | 213840CX | 93.21 | 83.89 | 75.50 |
| 213831CX | Mean Well | TP-150C | 5V@2-15A; 15V@0.4-4.5A; -15V@0-0.6A | 151.5W | 90-264@47-63 | ✓ | see www.Jameco.com | | 2.77 | 100 | 3.0 | | 1.0 | 45 | 3,000 | 3.5 | 60 | 20 | 10-500Hz; 2G | 10 | 77 | 1.8 | UL/CUL/TUV/CE | 213831CX | 93.21 | 83.89 | 75.50 | |
| 213823CX | Mean Well | TP-150D | 5V@2-15A; 24V@0.4-3A; 12V@0-0.6A | 154.2W | 90-264@47-63 | ✓ | see www.Jameco.com | | 2.82 | 100 | 3.0 | | 1.0 | 45 | 3,000 | 3.5 | 60 | 20 | 10-500Hz; 2G | 10 | 78 | 1.8 | UL/CUL/TUV/CE | 213823CX | 94.36 | 84.92 | 76.43 | |
| 213633CX | Mean Well | QP-150-3B | 3.3V@0-10A; 5V@3-10A; 12V@0.4-5A; -12V@0-0.6A | 150.2W | 90-264@47-63 | ✓ | see www.Jameco.com | | 2.47 | 100 | 2.0 | ↔ | 1.0 | 45 | 3,000 | 3.5 | 50 | 16 | 10-500Hz; 2G | 10 | 75 | 1.8 | UL/CUL/TUV/CE | 213633CX | 104.95 | 94.49 | 84.95 | |
| 213647CX | Mean Well | QP-150F | 5V@3-10A; 15V@0-3A; 24V@0.4-2A; -15V@0-0.6A | 152.0W | 90-264@47-63 | ✓ | see www.Jameco.com | | 2.50 | 120 | 2.0 | | 1.0 | 45 | 3,000 | 3.5 | 50 | 16 | 10-500Hz; 2G | 10 | 78 | 1.8 | UL/CUL/TUV/CE | 213647CX | 145.95 | 120.99 | 106.99 | |

* Primary Output

SALE

Special Offers at Great Savings – 90-Day Warranty

| Enclosed | Jameco Part No. | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | PFC | Size Inches (LxWxH) | Mounting Holes Inches (LxWxDia.) | Power Density (W/in²) | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | | Line Reg. (±%)* | Inrush Curr. (A@ 120VAC) | Isolation Voltage (VAC) | Leakage Current (mA@240V) | Rise Time (ms) | Hold-up Time (ms) | Vibration | Voltage Adjustment (%)* | Efficiency (%) | Weight (lbs.) | Certification | Jameco Part No. | Price | | |
|----------|---------------------------|--------------|-----------------------------|----------|--------|------------------|-----|---------------------|----------------------------------|-----------------------|--------------------------|-----------------|---|-----------------|--------------------------|-------------------------|---------------------------|----------------|-------------------|--------------|-------------------------|----------------|---------------|---------------|-----------------|---------|---------|---------|
| | Voltage@Current (min-max) | Power | Price | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 10 | 25 |
| | 205701CX | Volgen | EXU-05030 | 5V@30A | 150.0W | 100/120@50-60 | — | 7.7x3.7x2.3 | 5.0x2.2x0.16 | 2.29 | — | 0.8 | ↔ | 0.4 | 30 | 2,000 | 0.5 | 200 | — | 10-55Hz: 20G | 10 | 80 | 1.6 | UL/CSA | 205701CX | \$23.95 | \$21.77 | \$19.80 |
| | 199515CX | Globtek | RT-3S150-24 | 24V@6.5A | 150.0W | 115/230@50-60 | — | 7.9x4.3x1.9 | 6.8x3.8x0.14 | 2.32 | 100 | 5.0 | | 5.0 | 35 | 3,000 | 3.5 | — | 20 | — | 5 | 80 | 1.8 | UL/CE | 199515CX | 59.95 | 47.95 | 35.95 |

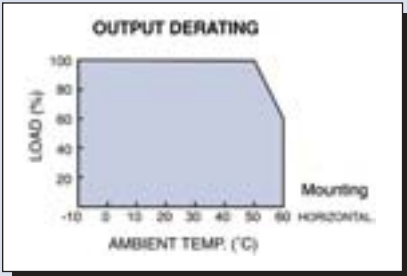
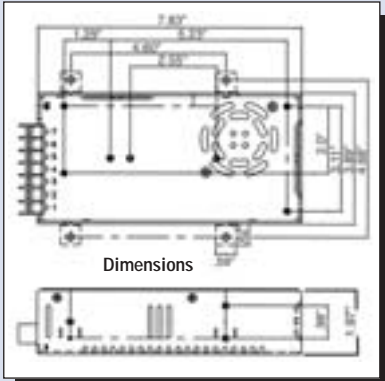
200-Watt Enclosed
With Power Factor Correction

SP-200 Series: Single Output

- 100% full-load burn-in
- Universal AC input
- No minimum load required
- Power Factor Correction
- Three-year warranty
- 105°C output capacitor
- 3.3 watts/in³ maximum
- Built-in fan cooling
- Mating connector: P/N 103587CX, pg 65
- -10° to +60°C working temperature (see output derating)
- Mounting hardware use P/Ns 222130CX, 222156CX, 222164CX, 222181CX & 222172CX; see www.Jameco.com for specifications



Detailed below in blue, this advanced switcher line is part of Mean Well's family of premium power supplies that carry an unusually long three-year warranty. Their performance, reliability and low cost result from a modern state-of-the-art design using highly integrated components. The SP-200 offers input Power Factor Correction that meets EN61000-3-2, required in Europe for power supplies 75 watts and above. Assured to operate correctly anywhere in the world, these open-frame switchers feature universal voltage input ranges of 85-264VAC and 120-370VDC. The built-in cooling fan operates automatically from both thermal and load-based sensors. These products are approved by UL, CUL, and TUV; and carry the CE mark, for use worldwide. The EMC standards met are EN55022 Class B and EN61000-4-2/3/4/5/6/8/11.



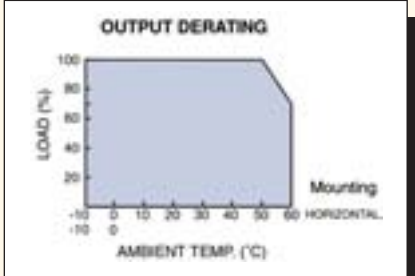
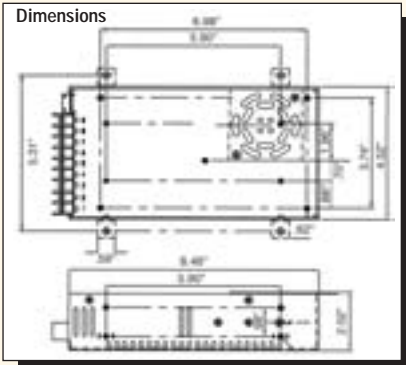
UNDERSTANDING POWER SUPPLIES #1
RADIATED EMI: Also called radio-frequency interference (RFI), EMI is unwanted high-frequency energy caused by the switching transistors, output rectifiers, and zener diodes in switching power supplies. That portion that is radiated through space is known as Radiated EMI. Most radiated EMI measurements are done between 30MHz and 300MHz.

200-Watt Enclosed
With Power Factor Correction

QP-200 Series: Quad Output

- 100% full-load burn-in
- Remote sense
- 105°C output capacitor
- Built-in fan cooling
- Mating connector: P/N 103587CX, pg 65
- -10° to +60°C working temperature (see output derating)
- Mounting hardware use P/Ns 222148CX, 222156CX, 222181CX & 222172CX; see www.Jameco.com for specifications

Shown below in buff color, the Mean Well QP-200 quad-output, enclosed switcher features remote sensing for precise point-of-load voltage control on V1 and V2, and full isolation on V4. The built-in cooling fan assures safe operation at full power output over the ambient temperature range of -10°C to 50°C, with derating to 60°C (see below). The impressive performance, reliability and low-cost of the QP-200 series results from a modern state-of-the-art design using highly integrated components. It offers input Power Factor Correction that meets EN61000-3-2, required in Europe for power supplies 75 watts and above. Assured to operate correctly anywhere in the world, these open-frame switchers feature universal voltage input ranges of 90-264VAC and 127-370VDC. These products are approved by UL, CUL and TUV; and carry the CE mark, for worldwide use. The QP-200 series meets EMC standards EN55022 Class B and EN61000-4-2/3/4/5/6/8/11.



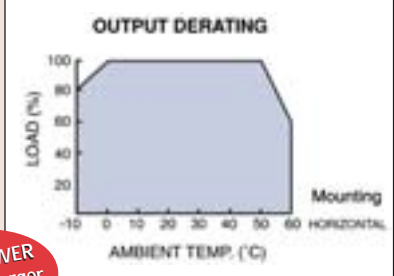
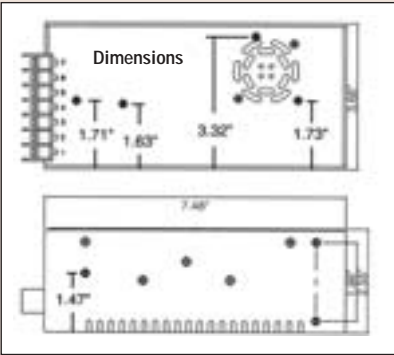
UNDERSTANDING POWER SUPPLIES #2
REMOTE SENSING: A technique of regulating the output voltage of a power supply at the load by means of high-impedance, low-current sensing leads which go from the load back to the regulator. This compensates for voltage drops in the load leads.

240-Watt Enclosed

S-240 Series: Single Output

- 100% full-load burn-in
- No minimum load required
- 105°C output capacitor
- Auto cooling fan
- Two-year warranty
- Mating connector: P/N 103587CX, pg 65
- -10°C to +60°C working temp. (see output derating)
- Mounting hardware use P/Ns 222148CX, 222156CX & 222172CX; see www.Jameco.com for specifications

Highlighted below in tan, with a built-in cooling fan that operates from an automatic thermal switch, the workhorse Mean Well S-240 produces 240 watts of power from 0°C to 50°C, and is derated to -10°C and 60°C (see below). The input features an auto-sensing circuit that switches between 88-132VAC and 176-264VAC. The impressive reliability derives from a conservative design, the exclusive use of high-quality components, and 100% full-load burn-in. Protection includes short-circuit, overload and over-voltage. A novel soft-start circuit limits the AC surge current. Guaranteed safety standards comprise UL1950 and TUV EN60950, and these products carry the European CE mark. The DC output voltage can be adjusted ±10% of nominal rating.



UNDERSTANDING POWER SUPPLIES #3
OUTPUT CURRENT LIMITING: An output protection feature which limits the output current to a predetermined value in order to prevent damage to the power supply or the load under overload conditions. The supply is automatically restored to normal operation following removal of the overload.

Open-Frame Power Supplies on pages 130-137.

SALE

| Enclosed | Jameco Part No. | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | PFC | Power Density (W/in ²) | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | | Line Reg. (±%)* | Inrush Curr. (A@ 120VAC) | Isolation Voltage (VAC) | Leakage Current (mA@240V) | Rise Time (ms) | Hold-up Time (ms) | Vibration | Voltage Adjustment (%)* | Efficiency (%) | Weight (lbs.) | Certification | Jameco Part No. | Price | | | Enclosed | |
|----------|-----------------|--------------|-----------------------------|--|--------|----------------------|-----|------------------------------------|--------------------------|-----------------|---|-----------------|--------------------------|-------------------------|---------------------------|----------------|-------------------|--------------|-------------------------|----------------|---------------|---------------|-----------------|----------|---------|---------|----------|--|
| | | | | Voltage@Current (min-max) | Power | | | | | | | | | | | | | | | | | | | 130-137 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 1 | 10 | 25 | | |
| Enclosed | 212417CX | Mean Well | SP-200-3.3 | +3.3V@0-40A | 132.0W | 85-264@47-63 | ✓ | 2.17 | 100 | 1.0 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz: 2G | 10 | 65 | 1.9 | UL/CUL/TUV/CE | 212417CX | \$70.64 | \$63.57 | \$57.22 | | |
| | 202041CX | Mean Well | SP-200-5 | +5V@0-40A | 200.0W | 85-264@47-63 | ✓ | 3.29 | 100 | 1.0 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz: 2G | 10 | 71 | 1.9 | UL/CUL/TUV/CE | 202041CX | 102.95 | 92.66 | 83.39 | | |
| | 194773CX | Mean Well | SP-200-12 | +12V@0-16.7A | 200.4W | 85-264@47-63 | ✓ | 3.29 | 100 | 0.5 | ↔ | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz: 2G | 10 | 79 | 1.9 | UL/CUL/TUV/CE | 194773CX | 102.95 | 92.66 | 83.39 | | |
| | 212409CX | Mean Well | SP-200-13.5 | +13.5V@0-14.9A | 201.1W | 85-264@47-63 | ✓ | 3.31 | 100 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz: 2G | 10 | 80 | 1.9 | UL/CUL/TUV/CE | 212409CX | 102.95 | 92.66 | 83.39 | | |
| | 202059CX | Mean Well | SP-200-15 | +15V@0-13.4A | 201.0W | 85-264@47-63 | ✓ | 3.30 | 100 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz: 2G | 10 | 81 | 1.9 | UL/CUL/TUV/CE | 202059CX | 102.95 | 92.66 | 83.39 | | |
| | 194781CX | Mean Well | SP-200-24 | +24V@0-8.4A | 201.6W | 85-264@47-63 | ✓ | 3.31 | 150 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz: 2G | 10 | 83 | 1.9 | UL/CUL/TUV/CE | 194781CX | 102.95 | 92.66 | 83.39 | | |
| | 202067CX | Mean Well | SP-200-48 | +48V@0-4.2A | 201.6W | 85-264@47-63 | ✓ | 3.31 | 250 | 0.5 | | 0.5 | 40 | 3,000 | 2.0 | 30 | 20 | 10-500Hz: 2G | 10 | 84 | 1.9 | UL/CUL/TUV/CE | 202067CX | 102.95 | 92.66 | 83.39 | | |
| | 213743CX | Mean Well | QP-200-3B | +3.3V@0-15A; +5V@3-15A; +12V@0.5-6A; -12V@0-0.7A | 204.9W | 90-264@47-63 | ✓ | 2.65 | 100 | 2.0 | | ↔ | 1.0 | 45 | 3,000 | 2.0 | 50 | 16 | 10-500Hz: 2G | 10 | 72 | 2.4 | UL/CUL/TUV/CE | 213743CX | 112.95 | 101.66 | 91.49 | |
| | 213735CX | Mean Well | QP-200-3D | +3.3V@0-15A; +5V@3-10A; +24V@0.4-4A; -12V@0-0.7A | 203.9W | 90-264@47-63 | ✓ | 2.64 | 100 | 2.0 | | ↔ | 1.0 | 45 | 3,000 | 2.0 | 50 | 16 | 10-500Hz: 2G | 10 | 74 | 2.4 | UL/CUL/TUV/CE | 213735CX | 112.95 | 101.66 | 91.49 | |
| | 213751CX | Mean Well | QP-200D | +5V@3-15A; +12V@0-4A; +24V@0.4-3A; -12V@0-0.7A | 203.4W | 90-264@47-63 | ✓ | 2.63 | 100 | 2.0 | | | 1.0 | 45 | 3,000 | 2.0 | 50 | 16 | 10-500Hz: 2G | 10 | 75 | 2.4 | UL/CUL/TUV/CE | 213751CX | 156.95 | 127.99 | 112.99 | |
| | 202083CX | Mean Well | S-240-5 | +5V@0-40A | 200.0W | 88-132/176-264@47-63 | — | 2.86 | 150 | 1.0 | | | 0.5 | 18 | 3,000 | 1.2 | 20 | 20 | 10-500Hz: 2G | 10 | 78 | 2.5 | UL/CUL/TUV/CE | 202083CX | 91.10 | 81.99 | 73.79 | |
| | 137648CX | Mean Well | S-240-12 | +12V@0-18A | 216.0W | 88-132/176-264@47-63 | — | 3.09 | 150 | 0.5 | | | 0.5 | 18 | 3,000 | 1.2 | 20 | 20 | 10-500Hz: 2G | 10 | 82 | 2.5 | UL/CUL/TUV/CE | 137648CX | 109.95 | 98.95 | 89.09 | |
| | 202075CX | Mean Well | S-240-15 | +15V@0-15A | 225.0W | 88-132/176-264@47-63 | — | 3.22 | 150 | 0.5 | | ↔ | 0.5 | 18 | 3,000 | 1.2 | 20 | 20 | 10-500Hz: 2G | 10 | 83 | 2.5 | UL/CUL/TUV/CE | 202075CX | 99.95 | 89.95 | 80.95 | |
| | 137656CX | Mean Well | S-240-24 | +24V@0-10A | 240.0W | 88-132/176-264@47-63 | — | 3.40 | 180 | 0.5 | | | 0.5 | 18 | 3,000 | 1.2 | 20 | 20 | 10-500Hz: 2G | 10 | 84 | 2.5 | UL/CUL/TUV/CE | 137656CX | 109.95 | 98.95 | 89.09 | |
| | 167337CX | Mean Well | S-240-48 | +48V@0-5A | 240.0W | 88-132/176-264@47-63 | — | 3.40 | 240 | 1.0 | | | 1.0 | 18 | 3,000 | 1.2 | 20 | 20 | 10-500Hz: 2G | 10 | 87 | 2.5 | UL/CUL/TUV/CE | 167337CX | 109.95 | 98.95 | 89.09 | |

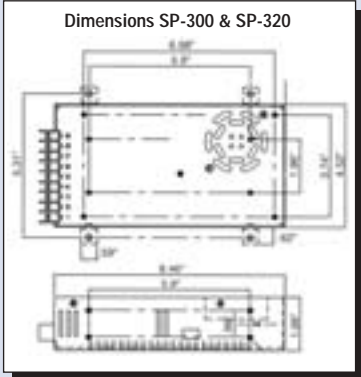
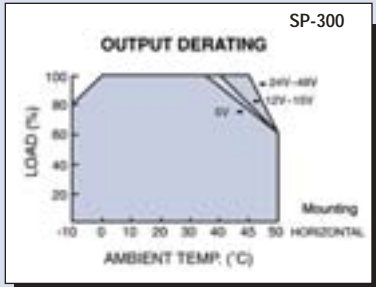
* Primary Output

300 & 320-Watt Enclosed
With Power Factor Correction

SP-300 & SP-320 Series: Single Output

- 100% full-load burn-in
- Universal AC input
- No minimum load required
- Auto cooling fan
- Power Factor Correction
- Three-year warranty
- 105°C output capacitor
- Mating connector: P/N 103587CX, pg 65
- Working temperature: SP-300: -10° to +60°C (see output derating); SP-320 -20° to 65° (see www.Jameco.com)
- Mounting hardware: use P/Ns 222156CX, 222130CX, 222181CX and 222172CX; www.Jameco.com for specs

Detailed below in blue, these series feature input Power Factor Correction that meets EN61000-3-2, required in Europe for power supplies 75 watts and above. These advanced switchers are part of Mean Well's family of premium power supplies that carry an unusually long three-year warranty. Couple this with the full range universal input ranges of 85-264VAC and 120-370VDC, and these switchers are ready for use worldwide. Meeting the requirements of TUV EN60950, they are approved by UL and TUV, and carry the CE mark. The high-density enclosed packaging results in a profile of only 2" and a maximum power density of 4.3 watts per cubic inch. Protection includes short-circuit, overload and over-voltage.



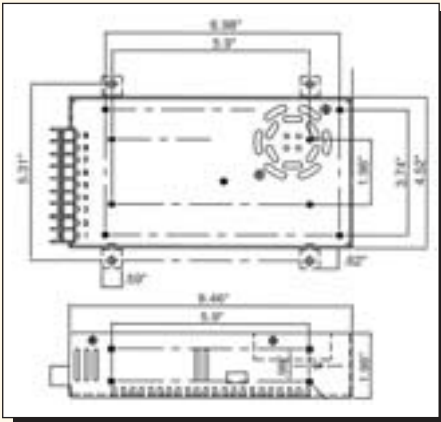
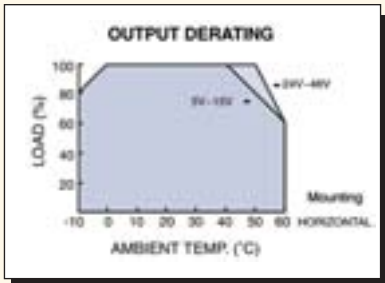
SALE

Open-Frame Power Supplies
on pages 130-137.

320-Watt Enclosed
S-320 Series: Single Output

- 100% full-load burn-in
- Auto cooling fan
- No minimum load required
- 4.1 watts/in³ max.
- 105°C output capacitor
- Two-year warranty
- Mating connector: P/N 103587CX, pg 65
- -10° to +60°C working temp. (see output derating)
- Mounting hardware: use P/Ns 222156CX, 222148CX, 222181CX & 222172CX; see www.Jameco.com

Shown below in buff color, the workhorse S-320 series has long been one of the most popular series of Mean Well power supplies. Full 320 watts of power is available over the ambient temperature range of 0°C to 50°C. With derating the range extends to -10°C and 60°C. The solid, reliable, low-cost design features overload protection to 135% of rated load with auto-recovery, and over-voltage protection to 145% of rated output voltage.

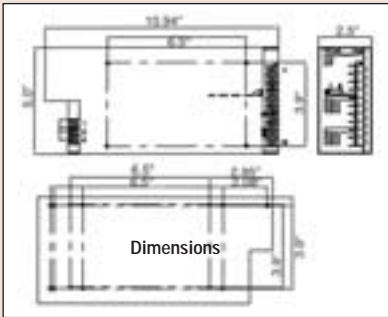
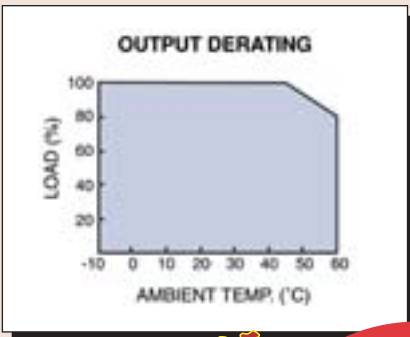


375-Watt Enclosed
With Power Factor Correction

QP-375 Series: Quad Output

- 100% full-load burn-in
- Universal AC input
- Remote sense
- 2.8 watts/in³ max.
- Auto cooling fan
- Three-year warranty
- 105°C output capacitor
- Mating connector: P/N 103587CX, pg 65
- -10°C to +60°C working temperature (see output derating)
- Mounting hardware: use P/Ns 222156CX & 222172CX; see www.Jameco.com for specifications

Highlighted below in tan, the Mean Well QP-375 series is a unique quad-output switcher design that offers no minimum current requirement for V2 & V3. Additionally, both V1 and V2 are fully isolated so they can be operated with ± polarity. Greater versatility results from availability of remote sensing for precise point-of-load voltage control and a "power good/fail signal". The built-in cooling fan assures safe operation at full power output over the ambient temperature range of -10°C to 45°C, with derating to 60°C (see below). The QP-375 series offers input Power Factor Correction that meets EN61000-3-2. This enclosed switcher line features universal voltage input ranges of 90-264VAC & 120-370VDC.



SALE

Call for LOWER
PRICES on Larger
Quantities

Open-Frame Power Supplies
on pages 130-137.

| | Jameco Part No. | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | PFC | Power Density (W/in²) | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | | Line Reg. (±%)* | Inrush Curr. (A@ 120VAC) | Isolation Voltage (VAC) | Leakage Current (mA@240V) | Rise Time (ms) | Hold-up Time (ms) | Vibration | Voltage Adjustment (%)* | Efficiency (%) | Weight (lbs.) | Certification | Jameco Part No. | Price | | | | | |
|----------|-----------------|--------------|---|---------------------------|--------------|----------------------|------|-----------------------|--------------------------|-----------------|-----|-----------------|--------------------------|-------------------------|---------------------------|----------------|-------------------|--------------|-------------------------|----------------|---------------|---------------|-----------------|----------|----------|----------|----------|----------|--------|
| | | | | Voltage@Current (min-max) | Power | | | | | | | | | | | | | | | | | | | 1 | 10 | 25 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Enclosed | 202091CX | Mean Well | SP-300-5 | +5V@0-50A | 250.0W | 88-264@47-63 | ✓ | 3.09 | 150 | 1.0 | ↔ | 0.5 | 18 | 3,000 | 1.0 | 50 | 20 | 10-500Hz: 2G | 10 | 75 | 2.6 | UL/CUL/TUV/CE | 202091CX | \$181.95 | \$159.70 | \$143.80 | Enclosed | | |
| | 137390CX | Mean Well | SP-300-12 | +12V@0-24A | 288.0W | 88-264@47-63 | ✓ | 3.56 | 150 | 0.5 | | 0.3 | 18 | 3,000 | 1.0 | 50 | 20 | 10-500Hz: 2G | 10 | 83 | 2.6 | UL/CUL/TUV/CE | 137390CX | 181.95 | 159.70 | 143.80 | | | |
| | 212396CX | Mean Well | SP-300-13.5 | +13.5V@0-21A | 285.0W | 88-264@47-63 | ✓ | 3.52 | 150 | 0.5 | | 0.3 | 18 | 3,000 | 1.0 | 50 | 20 | 10-500Hz: 2G | 10 | 83 | 2.6 | UL/CUL/TUV/CE | 212396CX | 181.95 | 159.70 | 143.80 | | | |
| | 202104CX | Mean Well | SP-300-15 | +15V@0-19A | 285.0W | 88-264@47-63 | ✓ | 3.52 | 150 | 0.5 | | 0.3 | 18 | 3,000 | 1.0 | 50 | 20 | 10-500Hz: 2G | 10 | 83 | 2.6 | UL/CUL/TUV/CE | 202104CX | 181.95 | 159.70 | 143.80 | | | |
| | 137402CX | Mean Well | SP-300-24 | +24V@0-12.5A | 300.0W | 88-264@47-63 | ✓ | 3.70 | 150 | 0.5 | | 0.2 | 18 | 3,000 | 1.0 | 50 | 20 | 10-500Hz: 2G | 10 | 85 | 2.6 | UL/CUL/TUV/CE | 137402CX | 181.95 | 159.70 | 143.80 | | | |
| | 161980CX | Mean Well | SP-300-48 | +48V@0-6.25A | 300.0W | 88-264@47-63 | ✓ | 3.70 | 240 | 0.5 | | 0.2 | 18 | 3,000 | 1.0 | 50 | 20 | 10-500Hz: 2G | 10 | 85 | 2.6 | UL/CUL/TUV/CE | 161980CX | 181.95 | 159.70 | 143.80 | | | |
| | 244734CX | Mean Well | SP-320-5 | +5V@0-55A | 275.0W | 88-264@47-63 | ✓ | 3.64 | 150 | 1.0 | ↔ | 0.5 | 22 | 3,000 | 1.0 | 50 | 16 | 10-500Hz: 2G | 10 | 79 | 2.6 | UL/CUL/TUV/CE | 244734CX | 146.95 | 132.25 | 118.99 | | Enclosed | |
| | 244742CX | Mean Well | SP-320-12 | +12V@0-25A | 300.0W | 88-264@47-63 | ✓ | 3.97 | 150 | 0.5 | | 0.3 | 22 | 3,000 | 1.0 | 50 | 16 | 10-500Hz: 2G | 10 | 86 | 2.6 | UL/CUL/TUV/CE | 244742CX | 146.95 | 132.25 | 118.99 | | | |
| | 244751CX | Mean Well | SP-320-24 | +24V@0-13A | 312.0W | 88-264@47-63 | ✓ | 4.13 | 150 | 0.5 | | 0.2 | 22 | 3,000 | 1.0 | 50 | 16 | 10-500Hz: 2G | 10 | 87 | 2.6 | UL/CUL/TUV/CE | 244751CX | 146.95 | 132.25 | 118.99 | | | |
| | 244769CX | Mean Well | SP-320-48 | +48V@0-6.7A | 321.6W | 88-264@47-63 | ✓ | 4.26 | 240 | 0.5 | | 0.2 | 22 | 3,000 | 1.0 | 50 | 16 | 10-500Hz: 2G | 10 | 89 | 2.6 | UL/CUL/TUV/CE | 244769CX | 146.95 | 132.25 | 118.99 | | | |
| | 216776CX | Mean Well | S-320-5 | +5V@0-50A | 250.0W | 88-132/176-264@47-63 | — | 3.27 | 150 | 1.0 | | ↔ | 0.5 | 20 | 3,000 | 3.5 | 20 | 20 | 10-500Hz: 2G | 10 | 77 | 2.5 | UL/CUL | 216776CX | 124.95 | 112.80 | | | 101.50 |
| | 207212CX | Mean Well | S-320-7.5 | +7.5V@0-36A | 270.0W | 88-132/176-264@47-63 | — | 3.53 | 150 | 0.5 | | | 0.5 | 20 | 3,000 | 3.5 | 20 | 20 | 10-500Hz: 2G | 10 | 80 | 2.5 | UL/CUL | 207212CX | 124.95 | 112.80 | | | 101.50 |
| | 207204CX | Mean Well | S-320-12 | +12V@0-25A | 300.0W | 88-132/176-264@47-63 | — | 3.92 | 150 | 0.5 | 0.5 | | 20 | 3,000 | 3.5 | 20 | 20 | 10-500Hz: 2G | 10 | 82 | 2.5 | UL/CUL | 207204CX | 124.95 | 112.80 | 101.50 | | | |
| | 196656CX | Mean Well | S-320-24 | +24V@0-12.5A | 300.0W | 88-132/176-264@47-63 | — | 3.92 | 150 | 0.5 | 0.5 | | 20 | 3,000 | 3.5 | 20 | 20 | 10-500Hz: 2G | 10 | 86 | 2.5 | UL/CUL | 196656CX | 124.95 | 112.80 | 101.50 | | | |
| | 207191CX | Mean Well | S-320-48 | +48V@0-6.5A | 312.0W | 88-132/176-264@47-63 | — | 4.08 | 240 | 0.5 | 0.5 | | 20 | 3,000 | 3.5 | 20 | 20 | 10-500Hz: 2G | 10 | 87 | 2.5 | UL/CUL | 207191CX | 124.95 | 112.80 | 101.50 | | | |
| 220302CX | Mean Well | QP-375-5A | +5V@3.5-30A; +12V@0-10A; +12V@0-6A; +12V@0-3A | 378.0W | 88-264@47-63 | ✓ | 2.77 | 100 | 0.8 | ↔ | 0.5 | | 45 | 3,000 | 2.0 | 50 | 20 | 10-500Hz: 2G | 10 | 77 | 5.1 | UL/CUL/TUV/CE | 220302CX | 277.11 | 249.40 | 224.46 | Enclosed | | |
| 220290CX | Mean Well | QP-375-5B | +5V@3.5-30A; +12V@0-10A; +12V@0-6A; +5V@0-3A | 357.0W | 88-264@47-63 | ✓ | 2.62 | 100 | 0.8 | | 0.5 | 45 | 3,000 | 2.0 | 50 | 20 | 10-500Hz: 2G | 10 | 77 | 5.1 | UL/CUL/TUV/CE | 220290CX | 277.11 | 249.40 | 224.46 | | | | |
| 220281CX | Mean Well | QP-375-5D | +5V@3.5-30A; +12V@0-9A; +12V@0-4A; +24V@0-3A | 378.0W | 88-264@47-63 | ✓ | 2.77 | 100 | 0.8 | | 0.5 | 45 | 3,000 | 2.0 | 50 | 20 | 10-500Hz: 2G | 10 | 78 | 5.1 | UL/CUL/TUV/CE | 220281CX | 277.11 | 249.40 | 224.46 | | | | |
| 220273CX | Mean Well | QP-375-24B | +24V@1-10A; +5V@0-10A; +12V@0-4A; +12V@0-4A | 386.0W | 88-264@47-63 | ✓ | 2.83 | 240 | 0.8 | | 0.5 | 45 | 3,000 | 2.0 | 50 | 20 | 10-500Hz: 2G | 10 | 78 | 5.1 | UL/CUL/TUV/CE | 220273CX | 277.11 | 249.40 | 224.46 | | | | |

Other Versions
Available: Call
800-831-4242

* Primary Output

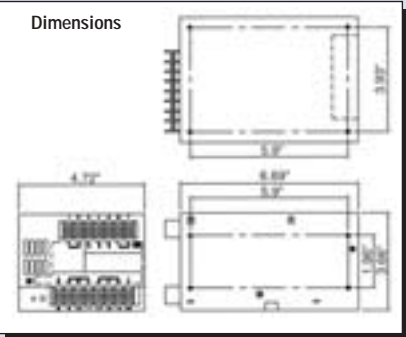
500-Watt Enclosed
With Power Factor Correction

SP-500 Series: Single Output

- 100% full-load burn-in
- Universal AC input
- No minimum load required
- 3.6 watts/in³ max.
- Power Factor Correction
- Auto cooling fan
- 105°C output capacitor
- Three-year warranty
- Remote control
- Mating connector: P/N 103587CX pg 65
- -10° to +60°C working temp. (see www.Jameco.com for output derating)
- Mounting hardware: use P/Ns 222199CX, 222156CX & 222172CX; see www.Jameco.com for specifications



Dimensions



Detailed below in blue, this advanced switcher line is part of Mean Well's family of premium power supplies that carry an unusually long three-year manufacturers warranty. Their performance, reliability and low cost result from a modern state-of-the-art design using highly integrated components. The SP-500 offers input Power Factor Correction of 0.98 at 115VAC that meets EN61000-3-2, required in Europe for power supplies 75 watts and above. Assured to operate correctly anywhere in the world, these enclosed switchers feature universal voltage input ranges of 88-264VAC and 124-370VDC. These products are approved by UL, CUL, and TUV; and carry the CE mark, for use worldwide. EMC standards met are EN55022 Class B and EN61000-4-2/3/4/5/6/8/11.

Open-Frame Power Supplies
on pages 130-137.

SALE

500, 1000 & 1500-Watt Enclosed
With Power Factor Correction
& Current Sharing

PSP-500, PSP-1000 & PSP-1500 Series:
Single Output

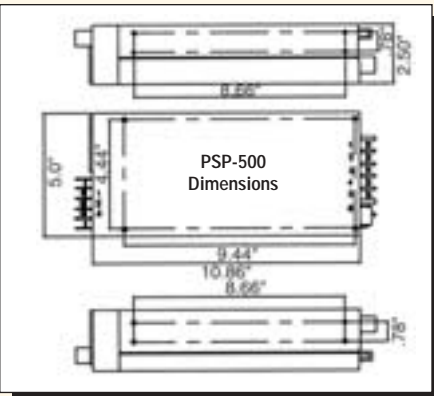
- 100% full-load burn-in
- Universal AC input
- No minimum load required
- 3.6 watts/in³ max.
- 105°C output capacitor
- Three-year warranty
- Parallel operation (current sharing)
- Remote sense and control
- Auto cooling fan
- Mating connector: P/N 103587CX, pg 65
- -10° to +60°C working temp. (see www.Jameco.com for output derating)
- Mounting hardware: use P/Ns 222156CX & 222172CX; see www.Jameco.com for specifications



PSP-500



PSP-500
Dimensions



Highlighted below in buff color, these families of feature rich, high-quality, low-cost switchers provide parallel operation to 2000W, Power Factor Correction of 0.98 at 115VAC that complies with EN61000-3-2, remote sensing for precise point-of-load voltage control, and ON-OFF remote control. Cooling is provided by an integral forced air fan (two in the PSP-1000) that assures safe operation at full power output over the ambient temperature range of 0°C to 50°C, with derating -10°C and 60°C at 80% of load. Protection includes short-circuit, overload, and over-voltage; a novel soft-start circuit limits the AC surge current. Guaranteed safety standards comprise UL1950 and TUV EN60950, and they carry the CE mark. The PSP-500 and the PSP-1000 series meet EMC standards EN55022 Class B and EN61000-4-2/3/4/5/6/8/11.

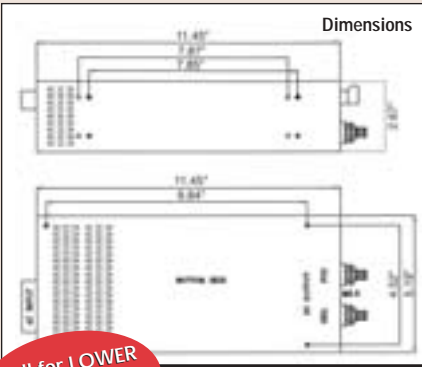
600-Watt Enclosed With Current Sharing

SCN-600 Series: Single Output

- 100% full-load burn-in
- Auto cooling fan
- No minimum load required
- 3.7 watts/in³ maximum
- 105°C output capacitor
- Two-year warranty
- Parallel operation (current sharing)
- Remote sense and control
- Mating connector: P/N 103587CX, pg 65
- -10° to +65°C working temperature; (+50° to -65°C @ 50% load)
- Mounting hardware: use P/Ns 222156CX & 222172CX; see www.Jameco.com for specifications



Dimensions



Shown below in tan, the SCN-600 family of 600-watt enclosed switchers offer advanced N+1 parallel operation, remote sensing for precise point-of-load voltage control and built-in remote ON-OFF control. Also, a unique capability allows output voltage adjustment from 10-100% of rated value with an external 1-5VDC signal. The DC output voltage can be adjusted ±5% of nominal rating. The solid, reliable, low-cost design features overload protection to 135% of rated load with auto-recovery, and over-voltage protection to 145% of rated output voltage. Additional protection includes short-circuit and a soft-start circuit that limits the AC surge current to a safe value. Meeting the requirements of UL1950 and TUV EN60950, these products are approved by UL, CUL and TUV; and carry the CE mark.

Call for LOWER
PRICES on Larger
Quantities

Open-Frame Power Supplies
on pages 130-137.

| Jameco Part No. | | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | PFC | Size Inches (LxWxH) | Mounting Holes Inches (LxWxDia.) | Power Density (W/in²) | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | | Line Reg. (±%)* | Inrush Curr. (A@ 120VAC) | Isolation Voltage (VAC) | Leakage Current (mA@240V) | Rise Time (ms) | Hold-up Time (ms) | Vibration | Voltage Adjustment (%)* | Efficiency (%) | Weight (lbs.) | Certification | Jameco Part No. | Price | | | |
|-----------------|----------|--------------|-----------------------------|---------------------------|----------|----------------------|-----|---------------------|----------------------------------|-----------------------|--------------------------|-----------------|---|-----------------|--------------------------|-------------------------|---------------------------|----------------|-------------------|--------------|-------------------------|----------------|---------------|---------------|-----------------|----------|----------|----------|----------|
| | | | | Voltage@Current (min-max) | Power | | | | | | | | | | | | | | | | | | | | | 1 10 25 | | | |
| Enclosed | 190692CX | Mean Well | SP500-12 | +12V@0-40A | 480.0W | 100-240@50-60 | ✓ | see diagram | see diagram | 3.60 | 240 | 0.5 | ↔ | 0.5 | 18 | 3,000 | 3.5 | 50 | 20 | 10-500Hz: 2G | 10 | 84 | 4.2 | UL/CUL/TUV/CE | 190692CX | \$249.95 | \$216.10 | \$194.50 | Enclosed |
| | 212388CX | Mean Well | SP500-13.5 | +13.5V@0-36A | 486.0W | 100-240@50-60 | ✓ | see diagram | see diagram | 3.65 | 240 | 0.5 | | 0.5 | 18 | 3,000 | 3.5 | 50 | 20 | 10-500Hz: 2G | 10 | 84 | 4.2 | UL/CUL/TUV/CE | 212388CX | 249.95 | 216.10 | 194.50 | |
| | 213604CX | Mean Well | SP500-15 | +15V@0-32A | 480.0W | 100-240@50-60 | ✓ | see diagram | see diagram | 3.60 | 240 | 0.5 | | 0.5 | 18 | 3,000 | 3.5 | 50 | 20 | 10-500Hz: 2G | 10 | 83 | 4.2 | UL/CUL/TUV/CE | 213604CX | 249.95 | 216.10 | 194.50 | |
| | 147053CX | Mean Well | SP500-24 | +24V@0-20A | 480.0W | 100-240@50-60 | ✓ | see diagram | see diagram | 3.60 | 240 | 0.5 | | 0.5 | 18 | 3,000 | 3.5 | 50 | 20 | 10-500Hz: 2G | 10 | 85.5 | 4.2 | UL/CUL/TUV/CE | 147053CX | 249.95 | 216.10 | 194.50 | |
| | 190705CX | Mean Well | SP500-27 | +27V@0-18A | 486.0W | 100-240@50-60 | ✓ | see diagram | see diagram | 3.65 | 200 | 0.5 | | 0.5 | 18 | 3,000 | 3.5 | 50 | 20 | 10-500Hz: 2G | 10 | 86.5 | 4.2 | UL/CUL/TUV/CE | 190705CX | 249.95 | 216.10 | 194.50 | |
| | 161795CX | Mean Well | SP500-48 | +48V@0-10A | 480.0W | 100-240@50-60 | ✓ | see diagram | see diagram | 3.60 | 300 | 0.5 | | 0.5 | 18 | 3,000 | 3.5 | 50 | 20 | 10-500Hz: 2G | 10 | 87 | 4.2 | UL/CUL/TUV/CE | 161795CX | 249.95 | 216.10 | 194.50 | |
| | 202112CX | Mean Well | PSP-500-5 | +5V@0-80A | 400.0W | 90-264@47-63 | ✓ | see diagram | see diagram | 2.91 | 100 | 2.0 | ↔ | 0.5 | 20 | 3,000 | 1.0 | 50 | 15 | 10-500Hz: 2G | 10 | 76 | 5.5 | UL/CUL/TUV/CE | 202112CX | 202.59 | 182.33 | 164.10 | |
| | 190713CX | Mean Well | PSP-500-12 | +12V@0-41.5A | 498.0W | 90-264@47-63 | ✓ | see diagram | see diagram | 3.62 | 150 | 0.5 | | 0.3 | 20 | 3,000 | 1.0 | 50 | 15 | 10-500Hz: 2G | 10 | 82 | 5.5 | UL/CUL/TUV/CE | 190713CX | 269.95 | 232.09 | 216.69 | |
| | 202121CX | Mean Well | PSP-500-15 | +15V@0-33A | 498.0W | 90-264@47-63 | ✓ | see diagram | see diagram | 3.60 | 150 | 0.5 | | 0.3 | 20 | 3,000 | 1.0 | 50 | 15 | 10-500Hz: 2G | 10 | 82 | 5.5 | UL/CUL/TUV/CE | 202121CX | 269.95 | 232.09 | 216.69 | |
| | 190721CX | Mean Well | PSP-500-24 | +24V@0-20.8A | 499.2W | 90-264@47-63 | ✓ | see diagram | see diagram | 3.63 | 150 | 0.5 | | 0.2 | 20 | 3,000 | 1.0 | 50 | 15 | 10-500Hz: 2G | 10 | 84 | 5.5 | UL/CUL/TUV/CE | 190721CX | 269.95 | 232.09 | 216.69 | |
| | 190730CX | Mean Well | PSP-500-27 | +27V@0-18.5A | 499.5W | 90-264@47-63 | ✓ | see diagram | see diagram | 3.63 | 150 | 0.5 | | 0.2 | 20 | 3,000 | 1.0 | 50 | 15 | 10-500Hz: 2G | 10 | 84 | 5.5 | UL/CUL/TUV/CE | 190730CX | 269.95 | 232.09 | 216.69 | |
| | 190748CX | Mean Well | PSP-500-48 | +48V@0-10.5A | 504.0W | 90-264@47-63 | ✓ | see diagram | see diagram | 3.67 | 200 | 0.5 | | 0.2 | 20 | 3,000 | 1.0 | 50 | 15 | 10-500Hz: 2G | 10 | 86 | 5.5 | UL/CUL/TUV/CE | 190748CX | 269.95 | 232.09 | 216.69 | |
| | 217373CX | Mean Well | PSP-1000-5 | +5V@0-145A | 725.0W | 90-264@47-63 | ✓ | see www.Jameco.com | | 2.61 | 100 | 2.0 | ↔ | 0.5 | 35 | 3,000 | 2.0 | 50 | 15 | 10-500Hz: 2G | 10 | 76 | 10.4 | UL/CUL/TUV/CE | 217373CX | 523.95 | 442.19 | 402.59 | |
| | 217365CX | Mean Well | PSP-1000-12 | +12V@0-75A | 900.0W | 90-264@47-63 | ✓ | see www.Jameco.com | | 3.24 | 150 | 0.5 | | 0.3 | 35 | 3,000 | 2.0 | 50 | 15 | 10-500Hz: 2G | 10 | 82 | 10.4 | UL/CUL/TUV/CE | 217365CX | 523.95 | 442.19 | 402.59 | |
| | 231642CX | Mean Well | PSP-1000-13.5 | +13.5V@0-67A | 1000.0W | 90-264@47-63 | ✓ | see www.Jameco.com | | 3.65 | 150 | 0.5 | | 0.3 | 40 | 3,000 | 2.0 | 50 | 15 | 10-500Hz: 2G | 10 | 84 | 10.4 | UL/CUL/TUV/CE | 231642CX | 523.95 | 442.19 | 402.59 | |
| | 231634CX | Mean Well | PSP-1000-15 | +15V@0-60A | 900.0W | 90-264@47-63 | ✓ | see www.Jameco.com | | 3.24 | 150 | 0.5 | | 0.3 | 40 | 3,000 | 2.0 | 50 | 15 | 10-500Hz: 2G | 10 | 84 | 10.4 | UL/CUL/TUV/CE | 231634CX | 523.95 | 442.19 | 402.59 | |
| | 217357CX | Mean Well | PSP-1000-24 | +24V@0-37.6A | 902.4W | 90-264@47-63 | ✓ | see www.Jameco.com | | 3.25 | 150 | 0.5 | | 0.2 | 35 | 3,000 | 2.0 | 50 | 15 | 10-500Hz: 2G | 10 | 84 | 10.4 | UL/CUL/TUV/CE | 217357CX | 523.95 | 442.19 | 402.59 | |
| | 231651CX | Mean Well | PSP-1000-27 | +27V@0-33.6A | 907.2W | 90-264@47-63 | ✓ | see www.Jameco.com | | 3.26 | 150 | 0.5 | | 0.2 | 40 | 3,000 | 2.0 | 50 | 15 | 10-500Hz: 2G | 10 | 86 | 10.4 | UL/CUL/TUV/CE | 231651CX | 523.95 | 442.19 | 402.59 | |
| | 217349CX | Mean Well | PSP-1000-48 | +48V@0-19A | 912.0W | 90-264@47-63 | ✓ | see www.Jameco.com | | 3.28 | 200 | 0.5 | ↔ | 0.2 | 35 | 3,000 | 2.0 | 50 | 15 | 10-500Hz: 2G | 10 | 86 | 10.4 | UL/CUL/TUV/CE | 217349CX | 523.95 | 442.19 | 402.59 | |
| | 231669CX | Mean Well | PSP-1500-5 | +5V@0-217.5A | 1087.5W | 176-264@47-63 | ✓ | see www.Jameco.com | | 2.76 | 100 | 2.0 | | 0.5 | 100 | 3,000 | 3.5 | 50 | 15 | 10-500Hz: 2G | 10 | 77 | 15.2 | CUL/TUV/CE | 231669CX | 786.95 | 663.25 | 619.25 | |
| | 231677CX | Mean Well | PSP-1500-12 | +12V@0-112.5A | 1350.0W | 176-264@47-63 | ✓ | see www.Jameco.com | | 3.42 | 150 | 0.5 | | 0.3 | 100 | 3,000 | 3.5 | 50 | 15 | 10-500Hz: 2G | 10 | 84 | 15.2 | CUL/TUV/CE | 231677CX | 811.85 | 523.68 | 471.31 | |
| | 231685CX | Mean Well | PSP-1500-13.5 | +13.5V@0-100.5A | 1356.75W | 176-264@47-63 | ✓ | see www.Jameco.com | | 3.44 | 150 | 0.5 | | 0.3 | 100 | 3,000 | 3.5 | 50 | 15 | 10-500Hz: 2G | 10 | 84 | 15.2 | CUL/TUV/CE | 231685CX | 811.39 | 523.24 | 470.91 | |
| | 231693CX | Mean Well | PSP-1500-15 | +15V@0-90.0A | 1350.0W | 176-264@47-63 | ✓ | see www.Jameco.com | | 3.42 | 150 | 0.5 | | 0.3 | 100 | 3,000 | 3.5 | 50 | 15 | 10-500Hz: 2G | 10 | 84 | 15.2 | CUL/TUV/CE | 231693CX | 786.95 | 663.25 | 619.25 | |
| | 231706CX | Mean Well | PSP-1500-24 | +24V@0-56.4A | 1353.6W | 176-264@47-63 | ✓ | see www.Jameco.com | | 3.43 | 150 | 0.5 | | 0.2 | 100 | 3,000 | 3.5 | 50 | 15 | 10-500Hz: 2G | 10 | 85 | 15.2 | CUL/TUV/CE | 231706CX | 786.95 | 663.25 | 619.25 | |
| | 231714CX | Mean Well | PSP-1500-27 | +27V@0-50.4A | 1360.8W | 176-264@47-63 | ✓ | see www.Jameco.com | | 3.45 | 150 | 0.5 | ↔ | 0.2 | 100 | 3,000 | 3.5 | 50 | 15 | 10-500Hz: 2G | 10 | 85 | 15.2 | CUL/TUV/CE | 231714CX | 786.95 | 663.25 | 619.25 | |
| | 231722CX | Mean Well | PSP-1500-48 | +48V@0-28.5A | 1368.0W | 176-264@47-63 | ✓ | see www.Jameco.com | | 3.47 | 200 | 0.5 | | 0.2 | 100 | 3,000 | 3.5 | 50 | 15 | 10-500Hz: 2G | 10 | 86 | 15.2 | CUL/TUV/CE | 231722CX | 786.95 | 663.25 | 619.25 | |
| | 220249CX | Mean Well | SCN-600-05 | +5V@0-100A | 500.0W | 90-130/180-260@47-63 | — | see diagram | see diagram | 3.10 | 100 | 2.0 | | 0.5 | 60 | 1,500 | 3.5 | 50 | 16 | 10-200Hz: 2G | 5 | 77 | 5.7 | UL/CUL | 220249CX | 273.95 | 213.99 | 197.99 | |
| | 220257CX | Mean Well | SCN-600-12 | +12V@0-50A | 600.0W | 90-130/180-260@47-63 | — | see diagram | see diagram | 3.72 | 120 | 1.0 | | 0.5 | 60 | 1,500 | 3.5 | 50 | 16 | 10-200Hz: 2G | 5 | 80 | 5.7 | UL/CUL | 220257CX | 273.95 | 213.99 | 197.99 | |
| | 220265CX | Mean Well | SCN-600-24 | +24V@0-25A | 600.0W | 90-130/180-260@47-63 | — | see diagram | see diagram | 3.72 | 240 | 1.0 | | 0.5 | 60 | 1,500 | 3.5 | 50 | 16 | 10-200Hz: 2G | 5 | 85 | 5.7 | UL/CUL | 220265CX | 273.95 | 213.99 | 197.99 | |

30-Watt Open Frame, Low Leakage

MPS-30 Series: Single Output

- 100% full load burn-in test
- 105°C output capacitor
- Universal AC input
- High-efficiency, low heat generation
- -10°C to + 50°C working temperature (see www.Jameco.com)
- Load regulation: $\pm 1.0\%$, except 220978CX: $\pm 2.0\%$
- Line regulation: $\pm 0.5\%$, except 220978CX & 220986CX: $\pm 1.0\%$
- Inrush current: 35A@120VAC • Leakage current: 0.3mA@240V
- Three-year warranty • Size: 4.0"L x 2.59"W x 0.98"H
- Mounting holes: 3.74"L x 2.02"W x 0.12"Dia.
- Mating connectors: P/Ns 104723CX & 104432CX, pg 79



- Isolation voltage: 4000VAC
- 2.9 watts/in³ maximum
- Weight: 0.3 lbs.

The Mean Well MPS-30 medical power supplies are low cost, high reliability open frame power supplies that feature a low leakage current of 0.3mA@240VAC. Other features of this open frame power supply are: universal input of 88-264VAC as well as 120-370VDC for battery-supported applications. Protections include short-circuit, overload, and over-voltage. They are UL and TUV approved, and carry a CE mark for use worldwide.

110-Watt Open Frame, Low Leakage

NFS110-79xxP Series: Quad Outputs

- 100% full-load burn-in
- 110W with 20 CFM of air
- Leakage current: 0.1mA@240V
- Size: 7.0"L x 4.25"W x 1.8"H
- In-rush current: 17A@120VAC
- Two-year warranty
- Mounting holes: 6.6"L x 3.75"W x 0.156"Dia.
- Mating connectors: P/Ns 104723CX, 104766CX & 104432CX, pg 79
- 0°C to +70°C working temp. (see www.Jameco.com)
- Universal AC input
- 2.1 watts/in³ maximum
- Voltage adjustment: 3%
- Isolation voltage: 4000VAC
- Line regulation: $\pm 0.1\%$
- Weight: 1.3 lbs.



Medical Table-Top Power Supplies & Wall Adapters on Page 147

The NFS110-79xxP models have proven to be highly reliable and versatile for a wide range of communication and industrial applications, with a very high peak current capability on each output for drive and motor applications. These models have full medical safety approval to EN60601 and UL2601, and meet conducted emissions requirements of EN55022 level A. They are designed for use in low power medical, dental and laboratory applications.

45 & 65-Watt Open Frame, Low Leakage

MPS-45 & MPS-65 Series: Single Output

- 100% full load burn-in test
- 105°C output capacitor
- Universal AC input
- High-efficiency, low heat generation
- Isolation voltage: 4000VAC
- 2.9 watts/in³ max.
- Voltage adjustment: 10%
- -10°C to + 60°C working temperature (see www.Jameco.com)
- Leakage current: 0.3mA@240V
- Inrush current: 20A@120VAC
- Line regulation: $\pm 1.0\%$
- Load regulation: $\pm 2.0\%$, except 221031CX, 221049CX, 221057CX, 221129CX, 221137CX, 221145CX: $\pm 3.0\%$
- Soft-start circuit, limiting AC surge current
- Three-year warranty • Weight: 0.6 lbs.
- Size: MPS-45: 5.0"L x 3.0"W x 1.06"H; MPS-65: 5.0"L x 3.0"W x 1.65"H
- Mounting holes: 4.55"L x 2.55"W x 0.14"Dia.
- Mating connectors: P/Ns 104432CX and 104731CX, pg 79



The MeanWell MPS-45 & MPS-65 medical power supplies are low cost, high reliability open frame power supplies. Other features of these power supplies are: universal input of 88-264VAC, as well as 120-370VDC for battery-applications. Full rated power is available with 18CFM forced air convection applied. Protections include short-circuit, overload, and over-voltage.

For Complete Specifications visit www.Jameco.com.

| Jameco Part No. | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | Ripple & Noise (mV p-p)* | Certification | Price | | |
|-----------------|--------------|-----------------------------|---|-------|------------------|--------------------------|---------------|---------|---------|---------|
| | | | Voltage@Current (min-max) | Power | | | | 1 | 10 | 25 |
| 220978CX | Mean Well | MPS-30-5 | +5V@0-5A | 25.0W | 88-264@47-63 | 80 | UL/CUL/TUV/CE | \$36.95 | \$33.26 | \$29.93 |
| 220986CX | Mean Well | MPS-30-12 | +12V@0-2.5A | 30.0W | 88-264@47-63 | 120 | UL/CUL/TUV/CE | 36.95 | 33.26 | 29.93 |
| 220994CX | Mean Well | MPS-30-15 | +15V@0-2A | 30.0W | 88-264@47-63 | 150 | UL/CUL/TUV/CE | 36.95 | 33.26 | 29.93 |
| 221006CX | Mean Well | MPS-30-24 | +24V@0-1.2A | 28.8W | 88-264@47-63 | 240 | UL/CUL/TUV/CE | 36.95 | 33.26 | 29.93 |
| 221014CX | Mean Well | MPS-30-27 | +27V@0-1.1A | 29.7W | 88-264@47-63 | 240 | UL/CUL/TUV/CE | 36.95 | 33.26 | 29.93 |
| 221022CX | Mean Well | MPS-30-48 | +48V@0-0.6A | 28.8W | 88-264@47-63 | 240 | UL/CUL/TUV/CE | 36.95 | 33.26 | 29.93 |
| 221031CX | Mean Well | MPS-45-3.3 | +3.3V@0-8A | 26.4W | 90-264@47-440 | 80 | UL/CUL/TUV/CE | 37.95 | 34.16 | 30.74 |
| 221049CX | Mean Well | MPS-45-5 | +5V@0-8A | 40.0W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 37.95 | 34.16 | 30.74 |
| 221057CX | Mean Well | MPS-45-7.5 | +7.5V@0-5.4A | 40.5W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 37.95 | 34.16 | 30.74 |
| 221065CX | Mean Well | MPS-45-12 | +12V@0-3.7A | 44.4W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 37.95 | 34.16 | 30.74 |
| 221073CX | Mean Well | MPS-45-13.5 | +13.5V@0-3.3A | 44.6W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 37.95 | 34.16 | 30.74 |
| 221081CX | Mean Well | MPS-45-15 | +15V@0-3A | 45.0W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 37.95 | 34.16 | 30.74 |
| 221090CX | Mean Well | MPS-45-24 | +24V@0-1.9A | 45.6W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 37.95 | 34.16 | 30.74 |
| 221102CX | Mean Well | MPS-45-27 | +27V@0-1.7A | 45.9W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 37.95 | 34.16 | 30.74 |
| 221111CX | Mean Well | MPS-45-48 | +48V@0-1A | 48.0W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 37.95 | 34.16 | 30.74 |
| 221129CX | Mean Well | MPS-65-3.3 | +3.3V@0-12A | 39.6W | 90-264@47-440 | 80 | UL/CUL/TUV/CE | 38.95 | 35.06 | 31.55 |
| 221137CX | Mean Well | MPS-65-5 | +5V@0-12A | 60.0W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 38.95 | 35.06 | 31.55 |
| 221145CX | Mean Well | MPS-65-7.5 | +7.5V@0-8A | 60.0W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 38.95 | 35.06 | 31.55 |
| 221153CX | Mean Well | MPS-65-12 | +12V@0-5.2A | 62.4W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 38.95 | 35.06 | 31.55 |
| 221161CX | Mean Well | MPS-65-13.5 | +13.5V@0-4.7A | 63.5W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 38.95 | 35.06 | 31.55 |
| 221170CX | Mean Well | MPS-65-15 | +15V@0-4.2A | 63.0W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 38.95 | 35.06 | 31.55 |
| 221188CX | Mean Well | MPS-65-24 | +24V@0-2.7A | 64.8W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 38.95 | 35.06 | 31.55 |
| 221196CX | Mean Well | MPS-65-27 | +27V@0-2.4A | 64.8W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 38.95 | 35.06 | 31.55 |
| 221209CX | Mean Well | MPS-65-48 | +48V@0-1.35A | 64.8W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 36.95 | 31.99 | 27.99 |
| 220222CX | Artesyn | NFS110-7901P | +5.1V@0-8; +12V@0-4.5A; -5V@0-0.5A; -12V@0-0.5A | 110W | 90-253@47-440 | 50 | UL/CSA/VDE/CE | 104.49 | 94.09 | 89.19 |
| 220214CX | Artesyn | NFS110-7902P | +5.1V@0-8A; +12V@0-4.5A; +24V@0-3.5A; -12V@0-0.5A | 110W | 90-253@47-440 | 50 | UL/CSA/VDE/CE | 104.49 | 94.09 | 89.19 |

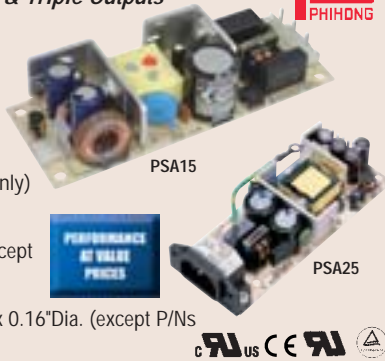
* Primary Output

15 to 25-Watt Open-Frame Switching AC-to-DC Power Supplies

15 & 25-Watt Open Frame

PSA15 & PSA25 Series: Single & Triple Outputs

- Load regulation: $\pm 2.0\%$
- Line regulation: $\pm 1.0\%$
- Universal input
- Inrush current: 30A @ 120VAC
- Isolation voltage: 3,000VAC
- Leakage current: 0.75mA@240V, except 230535CX: 0.25mA@240V
- Voltage adjustment: 5% (PSA15 only)
- Temperature: 0° to +40°C
- One-year warranty
- Size: 4.33"L x 1.57"W x 0.91"H, except 230535CX 3.6"L x 2.5"W x 1.1"H
- Weight: 0.3 lbs.
- Mounting holes: 4.02"L x 1.26"W x 0.16"Dia. (except P/Ns 230535CX 3.3"L x 2.2"W x 1.0"H)



Call for LOWER PRICES on Larger Quantities

25-Watt Open Frame

NLP-25 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- 3.3 watts/in³ maximum
- Line regulation: $\pm 2.0\%$
- Load regulation: $\pm 2.0\%$
- Isolation voltage: 3,000VAC
- Leakage current: 0.4mA@240V
- Mounting holes: 3.73"L x 1.80"W x 0.13"Dia.
- 0°C to +50°C working temp. (see www.Jameco.com)
- Two-year warranty • Weight: 0.3 lbs.
- Size: 4.0"L x 2.07"W x 0.91"H
- Mating connectors: P/Ns 104432CX & 104723CX, pg 79



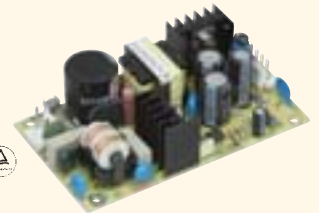
The NLP25 series provides 25W of power with free-air convection cooling that can peak at 30W for 60 seconds. Standard features include over-voltage and short-circuit protection. The NLP25 series, with full international safety approvals and the CE mark, meets conducted and radiated emissions EN55022 level B and complies to EN61000-4-2/3/4/5/6 immunity standards.

For Complete Specifications visit www.Jameco.com.

25-Watt Open Frame

PS-25 & PD-25 Series: Single & Dual Outputs

- 100% full-load burn-in
- 105°C output capacitor
- Size: 4.20"L x 2.40"W x 1.10"H
- Inrush current: 40A @ 120VAC
- -10°C to +60°C working temp (see www.Jameco.com)
- Mating connectors: P/Ns 104432CX & 104715CX, pg 79
- 2.1 watts/in³ maximum
- Universal AC input
- Leakage current: 0.5mA@240V
- Mounting holes: 3.70"L x 2.10"W x 0.14"Dia.
- Isolation voltage: 3,000VAC
- Two-year warranty
- Weight: 0.3 lbs.



The PS-25 and PD-25 series are low-cost, high-quality switchers that can be used for many lower-power commercial applications, both single and dual-output. Full rated power is available with free-air convection cooling in an industry-standard package size and mounting dimensions. They feature universal input and numerous features such as short-circuit, over-voltage, overload and over-temperature protection.

Enclosed Power Supplies on pages 118-129.

| Part Number | Load Reg. (±%) * | Line Reg. (±%) * |
|-------------|------------------|------------------|
| 212361CX | 2.5 | 0.5 |
| 212353CX | 2.0 | 0.5 |
| 148603CX | 1.0 | 0.3 |
| 216768CX | 1.0 | 0.3 |
| 212345CX | 0.5 | 0.2 |

| Part Number | Load Reg. (±%) * | Line Reg. (±%) * |
|-------------|------------------|------------------|
| 212311CX | 4.0 | 1.0 |
| 212337CX | 1.0 | 0.5 |
| 212329CX | 1.0 | 0.5 |
| 148689CX | 3.0 | 0.5 |

| Jameco Part No. | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | Ripple & Noise (mV p-p)* | Certification | Price | | |
|-----------------|--------------|-----------------------------|--|-------|------------------|--------------------------|---------------|---------|---------|---------|
| | | | Voltage@Current (min-max) | Power | | | | 1 | 10 | 25 |
| 229041CX | Phihong | PSA15LN3-050 | +5V@0-3A | 15.0W | 90-264@47-63 | 50 | UL/CUL/TUV/CE | \$17.95 | \$16.95 | \$16.19 |
| 229059CX | Phihong | PSA15LN3-120 | +12V@0-1.25A | 15.0W | 90-264@47-63 | 120 | UL/CUL/TUV/CE | 17.95 | 16.95 | 16.19 |
| 229067CX | Phihong | PSA15LN3-240 | +24V@0-0.63A | 15.0W | 90-264@47-63 | 240 | UL/CUL/TUV/CE | 17.95 | 16.95 | 16.19 |
| 230535CX | Phihong | PSA25L-301 | +5V@0.2-2A; +12V@0.1-1A; -12V@0-0.3A | 25.0W | 90-264@47-63 | 50 | UL/CUL/TUV/CE | 23.49 | 21.15 | 18.99 |
| 218472CX | Artesyn | NLP25-7605 | +5V@0-5A | 25.0W | 90-264@47-440 | 50 | UL/CSA/VDE/CE | 36.19 | 32.55 | 29.29 |
| 218481CX | Artesyn | NLP25-7612 | +12V@0-2.08A | 25.0W | 90-264@47-440 | 120 | UL/CSA/VDE/CE | 36.19 | 32.55 | 29.29 |
| 218499CX | Artesyn | NLP25-7624 | +24V@0-1.04A | 25.0W | 90-264@47-440 | 150 | UL/CSA/VDE/CE | 36.19 | 32.55 | 29.29 |
| 218501CX | Artesyn | NLP25-7608 | +5V@0.2-2A; +12V@0.1-0.8A; -12V@0-0.1A | 20.8W | 90-264@47-440 | 50 | UL/CSA/VDE/CE | 36.19 | 32.55 | 29.29 |
| 212361CX | Mean Well | PS-25-3.3 | +3.3V@0-5A | 16.5W | 85-264@47-63 | 80 | UL/CUL/TUV/CE | 17.95 | 16.95 | 16.19 |
| 212353CX | Mean Well | PS-25-5 | +5V@0-5A | 25.0W | 85-264@47-63 | 80 | UL/CUL/TUV/CE | 17.95 | 16.95 | 16.19 |
| 148603CX | Mean Well | PS-25-12 | +12V@0-2.1A | 25.2W | 85-264@47-63 | 100 | UL/CUL/TUV/CE | 18.95 | 17.95 | 17.19 |
| 216768CX | Mean Well | PS-25-15 | +15V@0-1.7A | 25.5W | 85-264@47-63 | 100 | UL/CUL/TUV/CE | 17.95 | 16.95 | 16.19 |
| 212345CX | Mean Well | PS-25-24 | +24V@0-1A | 24.0W | 85-264@47-63 | 240 | UL/CUL/TUV/CE | 18.95 | 17.95 | 17.19 |
| 212311CX | Mean Well | PD-2505 | +5V@0.1-3A; -5V@0.1-2.5A | 25.0W | 85-264@47-63 | 50 | UL/CUL/TUV/CE | 19.95 | 18.95 | 17.95 |
| 212337CX | Mean Well | PD-25A | +5V@0.2-2.5A; +12V@0.1-1.5A | 25.0W | 85-264@47-63 | 50 | UL/CUL/TUV/CE | 18.95 | 17.95 | 17.15 |
| 212329CX | Mean Well | PD-25B | +5V@0.2-2A; +24V@0.1-1A | 25.2W | 85-264@47-63 | 50 | UL/CUL/TUV/CE | 19.95 | 18.95 | 17.95 |
| 148689CX | Mean Well | PD-2512 | +12V@0.1-1.2A; -12V@0.1-1A | 24.0W | 85-264@47-63 | 50 | UL/CUL/TUV/CE | 19.95 | 18.95 | 17.95 |

* Primary Output

Special Offers at Great Savings – 90-Day Warranty

| Jameco Part No. | Mfr. | Manufacturer Product No. | Output | | Input (VAC @ Hz) | Size Inches (LxWxH) | Mounting Holes Inches (LxWxDia.) | Ripple & Noise (mV p-p) | Load Reg. (±%)* | Line Reg. (±%)* | Certification | Price | | |
|--------------------|-----------|-----------------------------|---------------------------|-------|---------------------|---------------------------|--|-------------------------------|-----------------------|-----------------------|---------------|--------|--------|--------|
| | | | Voltage@Current (min-max) | Power | | | | | | | | 1 | 10 | 25 |
| 189747CX | Tamura | 79642191 | +5V@1A; +12V@1A | 17.0W | 120/230@50-60 | 4.7x2.4x1.1 | — | 50 | — | 1.0 | — | \$8.95 | \$7.65 | \$5.75 |
| 173374CX | AUTEC | UPS20-2002† | +5V@1A; +12V@1.5A | 23.0W | 115/230@50-50 | 5.0x3.0x1.1 | 4.6x2.6x0.16 | 50 | 2.0 | 1.0 | UL/CSA/TUV | 7.95 | 7.15 | 6.35 |
| 166967CX | Super Mac | U002512010 | +5V@2.5A; +12V@1A | 24.5W | 100-240@50-60 | 3.7x2.5x1.2 | — | 50 | — | 1.0 | UL/CSA/TUV | 14.29 | 12.15 | 9.11 |

* Primary Output

† Hold-up Time: 20ms

Jameco Special Values! Sale items in yellow. Great quantity discounts in green.

30 to 50-Watt Open-Frame Switching AC-to-DC Power Supplies

Color Code Legend
New Sale Qty Save Closeout

40-Watt Open Frame

NFS-40 Series: Single & Triple Outputs

- 100% full-load burn-in
- No minimum load required
- 50 watts with 20 CFM of air
- Load regulation: $\pm 2.0\%$
- Inrush current: 12A@120VAC
- Isolation voltage: 3000VAC
- Size: 5.0"L x 3.0"W x 1.2"H
- 0° to +70°C working temperature (see www.Jameco.com)
- Mating connectors: P/Ns 104432CX & 104731CX, pg 79
- Universal AC input
- 2.8 watts/in² maximum
- Leakage current: 0.32mA@240V
- Line regulation: $\pm 0.2\%$
- Voltage adjustment: 5%
- Two-year warranty
- Weight: 0.6 lbs.
- Mounting holes: 4.56"L x 2.55"W x 0.16"Dia.

The Artesyn NFS40 series are industry-standard 40W power supplies with the capability to supply 50 watts with forced air cooling. Over-voltage and short-circuit protection are standard features. The NFS40 is ideal for use in equipment installed around the world because of its UL, CSA, VDE, EN60950 and IEC 950 approvals. These low-profile switchers with high power density are perfect for use in small digital systems of all types.

ARTESYN
TECHNOLOGIES



45-Watt Open Frame

PSA45 Series: Single, Triple & Quad Outputs

- Load regulation: $\pm 2.0\%$
- Line regulation: $\pm 2.0\%$
- Universal input
- Inrush current: 20A @ 120VAC
- Leakage current: 3.5mA@240V
- Temperature: 0° to +50°C
- One-year warranty
- Size: 5.0"L x 3.0"W x 1.2"H
- Weight: 0.9 lbs.
- Mounting holes: 4.56"L x 2.55"W x 0.16"Dia.

For Complete Specifications visit www.Jameco.com

Call for LOWER PRICES on Larger Quantities



45-Watt Open Frame

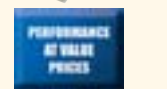
PS-45, PD-45 & PT-45 Series: Single, Dual & Triple Outputs

- 100% full-load burn-in
- 105°C output capacitor
- Mounting holes: 4.56"L x 2.55"W x 0.15"Dia.
- Load regulation: $\pm 3.0\%$ (except 213727CX/213719CX/213701CX: $\pm 2.0\%$)
- Inrush current: 20A@120VAC
- Mating connectors: P/Ns 104432CX & 104731CX, pg 79
- -10°C to +60°C working temperature (see www.Jameco.com)
- Universal AC input
- Size: 5.0"L x 3.0"W x 1.06"H
- Line regulation: $\pm 1.0\%$
- Leakage current: 0.5mA@240V
- Two-year warranty
- Weight: 0.5 lbs.
- 2.7 watts/in² maximum
- Voltage adjustment: 10%
- Isolation voltage: 3000VAC

The Mean Well PS-45, PD-45 and PT-45 series offer excellent performance with high reliability. These 45-watt switchers support full output power with free-air convection cooling. The high-density open-frame package features industry-standard mounting dimensions. Intended for virtually any medium power-application, these units provide short-circuit and over-voltage protection, as well as overload protection with auto-recovery.



Enclosed Power Supplies on pages 118-129.



| Jameco Part No. | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | Ripple & Noise (mV p-p)* | Certification | Price | | |
|-----------------|--------------|-----------------------------|--|-------|------------------|--------------------------|---------------|---------|---------|---------|
| | | | Voltage@Current (min-max) | Power | | | | 1 | 10 | 25 |
| 218510CX | Artesyn | NFS40-7605 | +5.1V@0-6A | 30.6W | 85-264@47-440 | 100 | UL/CSA/VDE/CE | \$46.39 | \$41.75 | \$37.55 |
| 218528CX | Artesyn | NFS40-7612 | +12V@0-3.3A | 39.6W | 85-264@47-440 | 120 | UL/CSA/VDE/CE | 46.39 | 41.75 | 37.55 |
| 218536CX | Artesyn | NFS40-7624 | +24V@0-1.6A | 38.4W | 85-264@47-440 | 240 | UL/CSA/VDE/CE | 46.39 | 41.75 | 37.55 |
| 190086CX | Artesyn | NFS40-7608 | +5V@0-3A; +12V@0-2A; -12V@0-0.35A | 43.2W | 85-264@47-440 | 50 | UL/CSA/VDE/CE | 46.39 | 41.75 | 37.55 |
| 218552CX | Artesyn | NFS40-7610 | +5V@0-3A; +15V@0-2A; -15V@0-0.35A | 50.2W | 85-264@47-440 | 50 | UL/CSA/VDE/CE | 46.39 | 41.75 | 37.55 |
| 229075CX | Phihong | PSA45-050 | +5V@0-8A | 40.0W | 90-264@47-63 | 50 | UL/CSA/TUV/CE | 29.95 | 26.95 | 24.25 |
| 229091CX | Phihong | PSA45-120 | +12V@0-4A | 48.0W | 90-264@47-63 | 120 | UL/CSA/TUV/CE | 29.95 | 26.95 | 24.25 |
| 229112CX | Phihong | PSA45-240 | +24V@0-2A | 48.0W | 90-264@47-63 | 240 | UL/CSA/TUV/CE | 29.95 | 26.95 | 24.25 |
| 229121CX | Phihong | PSA4531 | +5V@0-4A; +12V@0-1.5A; -12V@0-0.5A | 44.0W | 90-264@47-63 | 50 | UL/CSA/TUV/CE | 31.95 | 28.79 | 25.89 |
| 229139CX | Phihong | PSA4534 | +5V@0-4A; +15V@0-1.2A; -15V@0-0.5A | 45.5W | 90-264@47-63 | 50 | UL/CSA/TUV/CE | 31.95 | 28.79 | 25.89 |
| 229147CX | Phihong | PSA4541 | +5V@0-3A; +12V@0-2A; -5V@0-0.5A; -12V@0-0.5A | 47.5W | 90-264@47-63 | 50 | UL/CSA/TUV/CE | 32.95 | 29.65 | 26.69 |
| 217331CX | Mean Well | PS45-5 | +5V@0-8A | 40.0W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 27.95 | 21.99 | 19.85 |
| 213727CX | Mean Well | PS45-12 | +12V@0-3.7A | 44.4W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 27.95 | 21.99 | 19.85 |
| 213719CX | Mean Well | PS45-24 | +24V@0-1.9A | 45.6W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 27.95 | 21.99 | 19.85 |
| 213701CX | Mean Well | PS45-48 | +48V@0-1A | 48.0W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 24.95 | 22.46 | 20.21 |
| 194861CX | Mean Well | PD45A | +5V@0.4-3.2A; +12V@0.2-2 | 40.0W | 90-264@47-440 | 50 | UL/CUL/TUV/CE | 24.95 | 22.46 | 20.21 |
| 194870CX | Mean Well | PD45B | +5V@0.4-3.2A; +24V@0.2-1.2A | 44.8W | 90-264@47-440 | 50 | UL/CUL/TUV/CE | 24.95 | 22.46 | 20.21 |
| 88401CX | Mean Well | PT45B | +5V@0.4-3A; +12V@0.2-2A; -12V@0-0.3A | 45.0W | 90-264@47-440 | 50 | UL/CUL/TUV/CE | 29.95 | 23.09 | 20.89 |

Other Versions Available: Call 800-831-4242

Special Offers at Great Savings – 90-Day Warranty

SALE

| Jameco Part No. | Mfr. | Manufacturer Product No. | Output | | Input (VAC @ Hz) | Size Inches (LxWxH) | Mounting Holes Inches (LxWxDia.) | Ripple & Noise (mV p-p)* | Load Reg. (%) | Line Reg. (%) | Certification | Price | | |
|-----------------|--------------------|--------------------------|--|-------|------------------|---------------------|----------------------------------|--------------------------|---------------|---------------|---------------|---------|---------|---------|
| | | | Voltage@Current (min-max) | Power | | | | | | | | 1 | 10 | 25 |
| 210841CX | Power-One | MAP42-1005 | +5V@0-8A | 40.0W | 120-240@50-60 | 5.0x3.0x1.3 | 4.6x2.6x0.16 | 50 | 1.0 | 0.2 | UL/CSA/TUV/CE | \$19.95 | \$14.99 | \$10.49 |
| 163985CX | Samsung | PSPL430201A | +5V@5A; +12V@1.5A | 43.0W | 100-120@50-60 | 6.1x2.1x1.0 | — | — | — | — | UL/CUL | 11.95 | 10.16 | 7.62 |
| 204548CX | IPD Power | SRW-45-3102 | +5V@2.5A; +14.5V@2A; -5.2V@3A | 45.0W | 85-264@47-63 | 5.0x3.0x1.2 | 4.6x2.6x0.16 | — | 0.5 | — | — | 9.98 | 9.07 | 8.25 |
| 204492CX | IPD Power | SRW-45-4002 | +5V@5A; +15V@0.7A; -5V@2A | 45.0W | 85-264@47-63 | 5.0x3.0x1.2 | 4.6x2.6x0.16 | — | 0.5 | — | UL/CSA/TUV/CE | 11.02 | 10.02 | 9.11 |
| 204476CX | IPD Power | SRW-45-4004-27 | +5V@5A; +15V@0.7A; +27V@1A | 45.0W | 85-264@47-63 | 5.0x3.0x1.1 | 4.6x2.6x0.16 | — | 0.5 | — | UL/CUL/TUV/CE | 12.05 | 9.55 | 8.65 |
| 204530CX | IPD Power | SRW-45-4008 | +3.3V@5A; +3.3V@3A; +5V@3A; +12V@0.7A | 45.0W | 85-264@47-63 | 5.0x3.0x1.2 | 4.6x2.6x0.16 | — | 0.5 | — | UL/CUL/TUV/CE | 12.33 | 11.10 | 10.01 |
| 168225CX | Converter Concepts | STRC0006 | +5V@2.7A; +12V@1.2A; +35V@.35A; -5V@.18A | 30.0W | 85-135@57-63 | 9.0x2.0x1.6 | — | — | — | — | UL | 5.95 | 5.35 | 4.79 |

* Primary Output

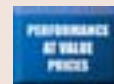
50-Watt Open Frame

LPS-50 Series: Single Output

- 100% full burn-in
- Universal AC input
- Other voltages available
- Built-in remote ON-OFF
- Short circuit, overload, over-voltage protection
- Input voltage: 90-264VAC@47-63Hz, 127-370VDC
- LED power indicator
- Power density: 3.32 watts / in³ maximum
- Voltage adjustment: 10%
- Load regulation: $\pm 2.0\%$ (LPS-50-12); $\pm 1.0\%$ (LPS-50-24)
- Line regulation: $\pm 1.0\%$
- Inrush current: 25A@115VAC
- Isolation voltage: 3000VAC
- Leakage current: $< 1\text{mA}$ @ 240VAC
- Working temperature: -20 to +70C
- Size: 7.7"L x 2.2"W x 0.9"H
- Mounting holes: 7.28"L x 1.77"W x 0.15"Dia.
- Weight: 0.5 lbs.
- Two-year warranty

The new Mean Well LPS-50 series open-frame power supply is suitable for the growing demand of low-cost, small-wattage applications. With its compact size and universal AC input, it is ideal for 1U (single unit) installations with a height of only 0.9" (23mm). It provides full output power with free-air convection cooling, built-in remote ON-OFF control, short-circuit, overload, and over-voltage protection. Meeting the requirements of UL60950 and TUV EN60950, these products are approved by UL/CUL/TUV and carry the CE mark.

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65-Watt Open Frame

NLP65-76 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- 75 watts with 20 CFM of air
- 3.9 watts/in³ maximum
- Load regulation: $\pm 2.0\%$
- Line regulation: $\pm 2.0\%$
- Inrush current: 17A@120VAC
- Isolation voltage: 3000VAC
- Leakage current: 0.7mA@240V
- Size: 5.0"L x 3.0"W x 1.26"H
- Mounting holes: 4.55"L x 2.55"W x 0.16"Dia.
- Weight: 0.6 lbs.
- Two-year warranty
- Mating connectors: P/Ns 104432CX & 104731CX, pg 79
- 0° to +70°C working temperature (see www.Jameco.com)

The Artesyn NLP65 series is one of the smallest in the industry and perfect for 1U applications. With just 20 CFM of air, the power can be boosted 15% to 75 watts from the free-air power of 65 watts. The NLP65 series, with full international safety approvals, and the CE mark, meets conducted and radiated emissions EN55022; and complies to EN61000-4-2/3/4/5/6 immunity standards. If Power Factor Correction is required, the Artesyn NLP65-96 series is also available in the same package (see page 134). The NLP65 is designed for use in low power data networking, computer and telecom applications such as hubs, routers POS terminals, internet servers, cable modems and PBXs; as well as many industrial applications.

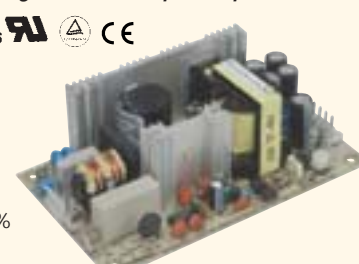


65-Watt Open Frame

PS-65, PD-65 & PT-65 Series: Single, Dual & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- 105°C output capacitor
- 2.9 watts/in³ maximum
- Load regulation: $\pm 2.0\%$, except 201937CX/194888CX/216725CX: 3.0% and 194896CX/216733CX: $\pm 4.0\%$
- Line regulation: $\pm 1.0\%$, except 194896CX/216733CX: $\pm 2.0\%$
- Inrush current: 20A@120VAC
- Isolation voltage: 3000VAC
- Voltage adjustment: 10%
- Leakage current: 0.5mA@240V
- Size: 5.0"L x 3.0"W x 1.65"H
- Mounting holes: 4.56"L x 2.55"W x 0.15"Dia.
- Mating connectors: P/Ns 104432CX & 104731CX, pg 79
- -10°C to +60°C working temperature (see www.Jameco.com)
- Two-year warranty
- Weight: 0.6 lbs.

The PS-65 and PT-65 series open-frame switchers from Mean Well are packaged in a high-density board with industry-standard mounting dimensions. Their impressive reliability derives from a conservative design, the exclusive use of high-quality components, and 100% full-load burn-in. Full rated power is available with free-air convection cooling. They are approved by UL and TUV, and carry the CE mark, for use worldwide. Assured to operate correctly anywhere in the world, these switchers feature universal voltage input ranges of 85-264VAC and 120-370VDC.



For Complete Specifications visit www.Jameco.com.

Enclosed Power Supplies
on pages 118-129.

| Jameco Part No. | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | Ripple & Noise (mV p-p)* | Certification | Price | | |
|-----------------|--------------|-----------------------------|--|-------|------------------|--------------------------|-------------------|---------|---------|---------|
| | | | Voltage@Current (min-max) | Power | | | | 1 | 10 | 25 |
| 252401CX | Mean Well | LPS-50-12 | +12V@0-4.2A | 50.4W | 90-264@47-63 | 80 | UL/CUL/TUV/CE | \$28.95 | \$23.65 | \$20.95 |
| 252620CX | Mean Well | LPS-50-24 | +24V@0-2.1A | 50.4W | 90-264@47-63 | 80 | UL/CUL/TUV/CE | 28.95 | 23.65 | 20.95 |
| 218561CX | Artesyn | NLP65-7605 | +5V@0-13A | 65.0W | 85-264@47-63 | 50 | UL/CUL/CSA/VDE/CE | 61.19 | 55.09 | 49.59 |
| 218579CX | Artesyn | NLP65-7612 | +12V@0-5.4A | 64.8W | 85-264@47-63 | 120 | UL/CUL/CSA/VDE/CE | 61.19 | 55.09 | 49.59 |
| 218587CX | Artesyn | NLP65-7608 | +5V@0-7.5A; +12V@0-2.5A; -12V@0-0.65A | 75.3W | 85-264@47-63 | 50 | UL/CUL/CSA/VDE/CE | 61.19 | 55.09 | 49.59 |
| 201937CX | Mean Well | PS-65-5 | +5V@0-12A | 60.0W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 29.95 | 25.29 | 21.99 |
| 148638CX | Mean Well | PS-65-12 | +12V@0-5.2A | 62.4W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 29.95 | 25.29 | 21.99 |
| 216750CX | Mean Well | PS-65-15 | +15V@0-4.2A | 63.0W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 29.95 | 25.29 | 21.99 |
| 148646CX | Mean Well | PS-65-24 | +24V@0-2.7A | 64.8W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 29.95 | 25.29 | 21.99 |
| 201945CX | Mean Well | PS-65-27 | +27V@0-2.4A | 64.8W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 29.95 | 25.29 | 21.99 |
| 201953CX | Mean Well | PS-65-48 | +48V@0-1.35A | 64.8W | 90-264@47-440 | 100 | UL/CUL/TUV/CE | 29.95 | 25.29 | 21.99 |
| 194888CX | Mean Well | PD65A | +5V@0.4-7A; +12V@0.2-3.2A | 61.1W | 90-264@47-440 | 50 | UL/CUL/TUV/CE | 34.95 | 26.39 | 23.09 |
| 194896CX | Mean Well | PD65B | +5V@0.4-3.5A; +24V@0.2-2A | 65.5W | 90-264@47-440 | 50 | UL/CUL/TUV/CE | 34.95 | 26.39 | 23.09 |
| 216733CX | Mean Well | PT-65B | +5V@0.4-5.5A; +12V@0.2-2.5A; -12V@0-0.5A | 63.5W | 90-264@47-440 | 50 | UL/CUL/TUV/CE | 36.95 | 28.59 | 25.29 |
| 216725CX | Mean Well | PT-65C | +5V@0.4-5.5A; +15V@0.2-2A; -15V@0-0.5A | 65.0W | 90-264@47-440 | 50 | UL/CUL/TUV/CE | 36.95 | 28.59 | 25.29 |

* Primary Output

Other Versions
Available: Call
800-831-4242

SALE

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50 to 100W Open-Frame Switching AC-to-DC Power Supplies

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Call for LOWER PRICES on Larger Quantities

65-Watt Open Frame with Power Factor Correction

NLP65-96 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- Power Factor Correction
- No minimum load required
- 3.9 watts/in³ maximum
- 75 watts with 20 CFM of air
- Load regulation: $\pm 2.0\%$
- Line regulation: $\pm 2.0\%$
- Inrush current: 17A@120VAC
- Leakage current: 0.7mA@240V
- Isolation voltage: 3000VAC
- Two-year warranty
- Weight: 0.6 lbs.
- Size: 5.0"L x 3.0"W x 1.26"H
- Mounting holes: 4.55"L x 2.55"W x 0.16"Dia.
- Mating connectors: P/Ns 104432CX & 104731CX, pg 79
- 0° to +70°C working temperature (see www.Jameco.com)

ARTESYN TECHNOLOGIES



TOP QUALITY U.S. BRAND

The Artesyn NLP65 series is one of the smallest in the industry and perfect for 1U applications. With just 20 CFM of air, the power can be boosted 15% to 75 watts from the free-air power of 65 watts. The NLP65 series, with full international safety approvals, and the CE mark, meets conducted and radiated emissions EN55022; and complies to EN61000-4-2/3/4/5/6 immunity standards. The Artesyn NLP65-96 models provide input harmonic current correction (Power Factor Correction) to satisfy EN61000-3-2. If Power Factor Correction is not required, the Artesyn NLP65-76 series is also available in the same package (see page 133).

The NLP65 is designed for use in low power data networking, computer and telecom applications such as hubs, routers POS terminals, internet servers, cable modems and PBXs; as well as many industrial applications.

Enclosed Power Supplies on pages 118-129.

Other Versions Available: Call 800-831-4242

For Complete Specifications visit www.Jameco.com.

75-Watt Open Frame

LPS-75 Series: Single Outputs

- 100% full-load burn-in
- Universal AC input
- 3.43 watts/in³ maximum
- Built-in remote ON/OFF
- PWM control and regulated
- Cooling by free-air convection
- Line regulation: $\pm 1.0\%$
- Load regulation: (244718CX) $\pm 1.0\%$; (244726CX) $\pm 2.0\%$
- Inrush current: 24A@120VAC
- Isolation voltage: 3000VAC
- Leakage current: 1.0mA@240V
- Voltage adjustment: 10%
- Two-year warranty
- Weight: 0.5 lbs.
- Size: 8.74"L x 2.16"W x 1.18"H
- Mounting holes: 8.34"L x 1.77"W x 0.149"Dia.
- Mating connectors: P/N 215950, p.129
- -20°C to +60°C working temperature (see www.Jameco.com)



PERFORMANCE AT VALUE PRICES

UL US CE

One of the newest modern designs is the open frame LPS 75 series power supplies. With their full range universal input of 90-264VAC@47-63Hz and 127-370VDC, these switchers are ready for use worldwide. Meeting the requirement of UL60950 and TUV EN60950, these products are approved by UL, CUL, TUV and carry the CE mark for use worldwide. EMC standards met are EN61000-4-2/3/4/5/6/8/11. The small and compact layout results in an impressive power density of 3.4watt/in³ and maximum height of 1.2".

| Jameco Part No. | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | Ripple & Noise (mV p-p)* | Certification | Price | | |
|-----------------|--------------|-----------------------------|---------------------------------------|-------|------------------|--------------------------|-------------------|---------|---------|---------|
| | | | Voltage@Current (min-max) | Power | | | | 1 | 10 | 25 |
| 218595CX | Artesyn | NLP65-9612 | +12V@0-5.4A | 64.8W | 85-264@47-63 | 120 | UL/CUL/CSA/VDE/CE | \$71.39 | \$64.25 | \$57.85 |
| 218608CX | Artesyn | NLP65-9624 | +24V@0-2.7A | 64.8W | 85-264@47-63 | 240 | UL/CUL/CSA/VDE/CE | 71.39 | 64.25 | 57.85 |
| 218616CX | Artesyn | NLP65-9608 | +5V@0-7.5A; +12V@0-2.5A; -12V@0-0.65A | 75.3W | 85-264@47-63 | 50 | UL/CUL/CSA/VDE/CE | 71.39 | 64.25 | 57.85 |
| 244718CX | Mean Well | LPS-75-12 | +12V@0-6.8A | 74.4W | 90-264@47-63 | 100 | UL/CUL/TUV/CE | 38.95 | 35.59 | 31.99 |
| 244726CX | Mean Well | LPS-75-24 | +24V@0-3.5A | 76.8W | 90-264@47-63 | 120 | UL/CUL/TUV/CE | 38.95 | 35.59 | 31.99 |

* Primary Output

Special Offers at Great Savings – 90-Day Warranty

| Jameco Part No. | Mfr. | Manufacturer Product No. | Output | | Input (VAC @ Hz) | Size Inches (LxWxH) | Mounting Holes Inches (LxWxDia.) | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | Line Reg. (±%)* | Certification | Price | | |
|-----------------|--------------|--------------------------|---|--------|------------------|---------------------|----------------------------------|--------------------------|-----------------|-----------------|---------------|---------|---------|--------|
| | | | Voltage@Current (min-max) | Power | | | | | | | | 1 | 10 | 25 |
| 169068CX | Autec | UPS65-1051 | +5V@0.2-13A | 65.0W | 115/230@50-60 | 6.0x3.5x1.5 | 4.8x3.2x0.16 | 50 | 1.0 | 0.5 | UL/CSA/VDE | \$11.95 | \$10.19 | \$6.95 |
| 190676CX | Astec | LPS112 | +5V@0-16A | 80.0W | 100-250@50-60 | 7.0x4.0x1.7 | 6.5x3.5x0.16 | 50 | — | — | UL/CSA/VDE/CE | 6.95 | 5.99 | 4.79 |
| 237024CX | Lite-On | PA-1101-1 | +12V@2-8.5A | 102.0W | 85-264@47-63 | 6.0x4.0x1.3 | — | 1200 | 10.0 | 1.0 | UL/CUL/TUV/CE | 39.95 | 33.95 | 25.49 |
| 203326CX | EOS | VLT100-1004↑ | +48V@0.2-2.1A | 100.0W | 100-240@50-60 | 5.0x3.0x1.0 | 4.6x2.6x0.16 | 480 | 3.0 | 0.3 | UL/CUL/VDE/CE | 27.95 | 23.75 | 17.85 |
| 171731CX | Delta | DPS-60MPB | +3.3V@0.8-8A; +5V@1-9A; | 65.0W | 90-270@47-63 | 5.8x3.3x1.4 | — | 50 | 2.0 | 2.0 | UL/CUL/TUV | 6.95 | 5.89 | 4.45 |
| 196824CX | Encad | U006612010 | +5.2V@3A ; +24V@2A | 65.0W | 90-250@50-60 | 6.3x3.9x1.5 | — | — | — | — | UL/CUL/TUV | 15.95 | 13.59 | 10.19 |
| 235088CX | Artesyn | NLP65-7629 | +5V@0-7A; +12V@0-2.5A | 65.0W | 85-264@47-63 | 5.0x3.0x1.3 | 4.6x2.6x0.16 | 50 | 2.0 | 2.0 | UL/CUL/CSA/CE | 51.69 | 46.36 | 43.67 |
| 196251CX | Lambda Power | PW-G-00790 | +3.3V@15A; +5V@7A +12V@0.8A | 85.0W | 100-240@50-60 | 8.0x3.5x1.3 | — | — | — | — | UL/CSA/TUV/CE | 5.55 | 4.99 | 4.49 |
| 226211CX | Phihong | PSA-60-302 | +5V@6A; +12V@1.2A; -12V@1.2A | 60.0W | 100-240@50-60 | 5.0x3.0x1.6 | 4.5x2.5x0.15 | 50 | 2.0 | 2.0 | UL/CSA/VDE | 29.95 | 26.95 | 24.29 |
| 215706CX | Mean Well | PT-65D | +5V@0.5-5A; +12V@0.2-4A; +24V@0.2-1.3A | 65.0W | 90-264@47-440 | 5.0x3.0x1.5 | 4.6x2.6x0.15 | 50 | 2.0 | 1.0 | UL/CUL/TUV/CE | 29.95 | 24.95 | 20.21 |
| 229850CX | IPD Power | SRW-65-3003 | +5V@5A; +15V@3.5A; -15V@1A | 65.0W | 85-264@47-63 | 6.0x4.0x1.1 | 5.7x3.5x0.15 | 50 | 1.0 | — | UL/CUL/TUV/CE | 22.95 | 20.69 | 18.59 |
| 189966CX | Autec | UPS61-1004-T | +3.3V@4A; +5V@2A; +12V@3A; +32V@0.5A | 65.0W | 115/230@50-60 | 5.0x3.5x1.8 | — | — | — | — | CSA/CE | 14.95 | 13.45 | 10.95 |
| 202876CX | Power-One | MAP80-4003 | +5V@14A; +15V@3.5A; -5V@1A; -15V@1A | 80.0W | 100/230@47-63 | 7.2x4.3x1.8 | 6.7x3.2x0.17 | 50 | 1.0 | 0.2 | UL/CSA/TUV/CE | 22.95 | 19.49 | 14.65 |

* Primary Output

† Power Factor Correction

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100-Watt Open-Frame Switching AC-to-DC Power Supplies

100-Watt Open Frame

LPS-100 Series: Single Output

- 100% full-load burn-in
- Auto-switch AC input
- No minimum load required
- 4.4 watts/in³ maximum
- 105°C output capacitor
- Load regulation: ±1.5%, except 173462CX/216709CX: ±0.5%
- Line regulation: ±0.5%
- Inrush current: 30A@120VAC
- Isolation voltage: 3000VAC
- Leakage current: 1.0mA@240V
- Voltage adjustment: 10%
- Three-year warranty
- Weight: 0.8 lbs.
- Size: 8.74"L x 2.44" x 1.25"W
- Mounting holes: 8.34"L x 2.04"W x 0.13"Dia.
- Mating connectors: P/Ns 215950CX & 215976CX, pg 79
- -10°C to +60°C working temperature (see www.Jameco.com)

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Quantities



One of Mean Well's premium series that carries an unusually long 3-year warranty. The LPS-100 benefits from a modern state-of-the-art design using highly integrated components. Assured to operate correctly anywhere in the world, these open-frame switchers feature universal voltage input ranges of 85-264VAC and 120-370VDC. The highly compact layout results in an impressive power density of 3.4 watts per inch³ and a maximum height of 1.3". These products are approved by UL, CUL and TUV; and carry the CE mark for use worldwide. EMC standards met are EN55022 (CISPR22) Class B and IEC1000-2/3/4.

Enclosed Power Supplies
on pages 118-129.

Other Versions
Available: Call
800-831-4242

100-Watt Open Frame

PQ-100 Series: Quad Outputs

- 100% full-load burn-in
- Universal AC input
- 105°C output capacitor
- 1.9 watts/in³ maximum
- Load regulation: 217306CX: ±2.0%; 217293CX: ±1.0%
- Line regulation: ±1.0%
- Inrush current: 50A@120VAC
- Isolation voltage: 3000VAC
- Leakage current: 1.0mA@240V
- Voltage adjustment: 10%
- Two-year warranty
- Weight: 1.1 lbs.
- Size: 7.0"L x 4.25"W x 1.88"H
- Mounting holes: 6.5"L x 3.75"W x 0.156"Dia.
- Mating connectors: P/Ns 104723CX, 104766CX & 104432CX pg 79
- -10°C to +60°C working temperature (see www.Jameco.com)



This impressive series of quad-output 100-watt switchers features universal input voltage ranges of 90-264VAC and 127-370VDC. The solid, reliable, low cost design features overload protection to 140% of rated load with auto-recovery, and over-voltage protection to 135% of rated output voltage. Additional protection includes short-circuit and a soft-start circuit that limits the AC surge current to a safe value. With free-air convection the 100-watt rated power is available from -10°C to 50°C ambient temperature, and 60°C with fan cooling. Withstand voltage is 3kVAC for input-to-output & 1.5kVAC input-to-ground.

For Complete Specifications visit www.Jameco.com.

| on pages 118-129. | | | | | | | | | | | |
|-------------------|--------------|-----------------------------|---|--|------------------|--------------------------|---------------|---------------|---------|---------|---------|
| Jameco Part No. | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | Ripple & Noise (mV p-p)* | Certification | Price | | | |
| | | | Voltage@Current (min-max) | | | | | Power | 1 | 10 | 25 |
| 213591CX | Mean Well | LPS100-5 | +5V@0-20A | | 100.0W | 88-264@47-63 | 100 | UL/CUL/TUV/CE | \$41.95 | \$37.73 | \$33.96 |
| 173471CX | Mean Well | LPS100-12 | +12V@0-8.4A | | 100.8W | 88-264@47-63 | 100 | UL/CUL/TUV/CE | 52.95 | 48.39 | 48.39 |
| 216717CX | Mean Well | LPS100-15 | +15V@0-6.7A | | 100.5W | 88-264@47-63 | 100 | UL/CUL/TUV/CE | 41.15 | 36.99 | 32.80 |
| 173462CX | Mean Well | LPS100-24 | +24V@0-4.2A | | 100.8W | 88-264@47-63 | 150 | UL/CUL/TUV/CE | 52.95 | 48.39 | 42.89 |
| 216709CX | Mean Well | LPS100-48 | +48V@0-2.1A | | 100.8W | 88-264@47-63 | 200 | UL/CUL/TUV/CE | 52.95 | 48.39 | 42.89 |
| 217306CX | Mean Well | PQ-100B | +5V@2-10A; +12V@0.5-3.5A; -5V@0-0.5A; -12V@0-0.5A | | 100.5W | 100-264@47-63 | 80 | UL/CUL/TUV/CE | 46.29 | 41.64 | 37.48 |
| 217293CX | Mean Well | PQ-100D | +5V@2-5A; +12V@0.5-2A; +24V@0.4-2A; -12V@0-0.5A | | 103.0W | 100-264@47-63 | 80 | UL/CUL/TUV/CE | 47.35 | 42.62 | 38.36 |

* Primary Output

For Mating Connectors see page 79.



For Line Cords see page 156.



Special Offers = Less From Your Coiffers!

To us engineers, $P=I^2R$. To the owners, $\text{Profit} = \text{Revenue} - \text{Expenses}$. Ownership may not entirely understand our equation, but there's no reason for us to ignore ownership's!



When selecting power supplies, there are many ways to save big money. Of course buying from this catalog is one of them! But there are strategies that can help you save much more without a lot of effort.

Interested in saving 70% or more off market price? Check out the "Special Offers at Great Savings" on pages 118-143. Our expert buyers found these exceptional one-time buys from major power supply manufacturers, and they're passing the savings directly to you! Just look at the manufacturers in the list and stock up now!

Practical Practices
Money Saving Tips for the Engineer

100 to 110W Open-Frame Switching AC-to-DC Power Supplies

Color Code Legend
New Sale Qty Save Closeout

100-Watt Open Frame With Power Factor Correction

LPP-100 Series: Single Output

- 100% full-load burn-in
- Auto-switch AC input
- No minimum load required
- 4.4 watts/in³ maximum
- 105°C output capacitor
- Power Factor Correction
- Load regulation: ±0.5%
- Line regulation: ±0.5%
- Inrush current: 40A@120VAC
- Isolation voltage: 3000VAC
- Voltage adjustment: 10%
- Weight: 0.8 lbs.
- Mounting holes: 8.34"L x 2.04"W x 0.13"Dia.
- Mating connectors: P/Ns 215950CX & 215976CX, pg 79
- -10°C to +60°C working temperature (see www.Jameco.com)



UL US CE

PERFORMANCE
AT VALUE
PRICES

100-Watt Open Frame with Power Factor Correction

PPQ-1003 & PPQ-100 Series: Quad Outputs

- 100% full-load burn-in
- Auto-switch AC input
- 2.3 watts/in³ maximum
- Power Factor Correction
- 105°C output capacitor
- Load regulation: ±2.0%
- Line regulation: ±1.0%
- Inrush current: 40A@120VAC
- Isolation voltage: 3000VAC
- Leakage current: PPQ-1003: 1.0mA@240V; PPQ-100: 3.5mA@240V
- Voltage adjustment: 10%
- Three-year warranty
- Mounting holes: 6.5"L x 3.75"W x 0.16"Dia.
- Mating connectors: PPQ1003-P/Ns 104766CX & two 104432CX, pg 79; PPQ100-P/Ns 104715CX & two 104723CX, pg 79;
- -10°C to +60°C working temperature (see www.Jameco.com)



UL US CE

PERFORMANCE
AT VALUE
PRICES

110-Watt Open Frame

NFS110-76 Series: Single & Quad Outputs

- 100% full-load burn-in
- Universal AC input
- 110W with 20 CFM of air
- 2.8 watts/in³ maximum
- Load regulation: ±2.0%
- Line regulation: ±0.1%
- Inrush current: 35A@120VAC
- Isolation voltage: 3000VAC
- Leakage current: 0.2mA@240V
- Voltage adjustment: 3%
- Weight: 1.3 lbs.
- Mounting holes: 6.6"L x 3.75"W x 0.16"Dia.
- Mating connectors: P/Ns 104723CX, 104766CX & 104432CX, pg 79
- 0°C to +70°C working temp. (see www.Jameco.com)



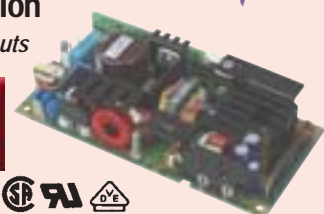
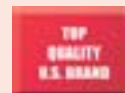
UL US CE

Two-year warranty
Size: 7.0"L x 4.25"W x 1.8"H

110-Watt Open Frame With Power Factor Correction

NLP110 Series: Single & Triple Outputs

- 100% full-load burn-in
- Universal AC input
- Power Factor Correction
- 6 watts/in³ maximum
- 105°C output capacitor
- Load regulation: ±2.0%
- Line regulation: ±2.0%
- Inrush current: 18A@120VAC
- Isolation voltage: 3000VAC
- Voltage adjustment: 3%
- Two-year warranty
- Size: 6.5"L x 3.0"W x 1.26"H
- Mating connectors: P/Ns 104432CX & 2 ea. 104731CX, pg 79
- 0°C to +70°C working temp. (see www.Jameco.com)



UL US CE

Leakage current: 0.45mA@240V
110W with 20 CFM of air
Weight: 0.6 lbs.
Mounting holes: 6.05"L x 2.55"W

For Complete Specifications visit
www.Jameco.com.

Enclosed Power Supplies
on pages 118-129.

SALE

| Jameco Part No. | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | Ripple & Noise (mV p-p)* | Certification | Price | | |
|-----------------|--------------|-----------------------------|---|--------|------------------|--------------------------|-------------------|---------|---------|---------|
| | | | Voltage@Current (min-max) | Power | | | | 1 | 10 | 25 |
| 216696CX | Mean Well | LPP-100-5 | +5V@0-20A | 100.0W | 85-264@47-63 | 100 | UL/CUL/TUV/CE | \$59.95 | \$53.96 | \$48.56 |
| 216688CX | Mean Well | LPP-100-12 | +12V@0-8.5A | 102.0W | 85-264@47-63 | 100 | UL/CUL/TUV/CE | \$64.95 | 57.39 | 51.65 |
| 216670CX | Mean Well | LPP-100-15 | +15V@0-6.7A | 100.5W | 85-264@47-63 | 100 | UL/CUL/TUV/CE | \$64.95 | 59.95 | 53.96 |
| 204610CX | Mean Well | LPP-100-24 | +24V@0-4.2A | 100.8W | 85-264@47-63 | 150 | UL/CUL/TUV/CE | 64.95 | 56.09 | 49.49 |
| 216653CX | Mean Well | LPP-100-48 | +48V@0-2.1A | 100.8W | 85-264@47-63 | 250 | UL/CUL/TUV/CE | \$64.95 | 59.95 | 53.96 |
| 213815CX | Mean Well | PPQ-1003B | +3.3V@0-10A; +5V@2-10A; +12V@0.2-2A; -12V@0-0.3A | 110.6W | 90-264@47-63 | 100 | UL/CUL/TUV/CE | 57.99 | 52.99 | 47.99 |
| 213807CX | Mean Well | PPQ-1003D | +3.3V@0-10A; +5V@2-10A; +12V@0.2-2A; +24V@0-0.3A | 114.2W | 90-264@47-63 | 100 | UL/CUL/TUV/CE | 57.99 | 52.99 | 47.99 |
| 217277CX | Mean Well | PPQ-100B | +5V@2-10A; +12V@0.3-3.4A; -12V@0-0.6A; -5V@0-0.6A | 101.0W | 90-264@47-63 | 100 | UL/CUL/TUV/CE | \$64.95 | 63.49 | 57.13 |
| 218982CX | Artesyn | NFS110-7612 | +12V@0-7A | 84.0W | 85-264@47-440 | 120 | UL/CUL/CSA/VDE/CE | 101.15 | 90.99 | 86.29 |
| 218974CX | Artesyn | NFS110-7624 | +24V@0-3.5A | 84.0W | 85-264@47-440 | 240 | UL/CUL/CSA/VDE/CE | 101.15 | 90.99 | 86.29 |
| 218966CX | Artesyn | NFS110-7602P | +5.1V@0-8A; +12V@0-4.5A; -5V@0-0.5A; -12V@0-0.5A | 103.3W | 85-264@47-440 | 50 | UL/CUL/CSA/VDE/CE | 101.15 | 90.99 | 86.29 |
| 220231CX | Artesyn | NFS110-7604 | +5.1V@0-8A; +15V@0-4A; -5V@0-0.5A; -15V@0-0.5A | 110.6W | 85-264@47-440 | 50 | UL/CUL/CSA/VDE/CE | 101.15 | 90.99 | 86.29 |
| 218915CX | Artesyn | NLP110-9605 | +5V@0.5-15A | 75.0W | 90-264@47-63 | 50 | UL/CUL/CSA/VDE | 101.99 | 91.79 | 82.59 |
| 218923CX | Artesyn | NLP110-9612 | +12V@0.3-6.4A | 76.8W | 90-264@47-63 | 120 | UL/CUL/CSA/VDE | 101.99 | 91.79 | 82.59 |
| 218931CX | Artesyn | NLP110-9624 | +24V@0.2-3.2A | 76.8W | 90-264@47-63 | 240 | UL/CUL/CSA/VDE | 101.99 | 91.79 | 82.59 |
| 218940CX | Artesyn | NLP110-9693 | +3.3V@0.2-13A; +5V@0.5-13A; +12V@0-0.65A | 110.0W | 90-264@47-63 | 50 | UL/CUL/CSA/VDE | 101.99 | 91.79 | 82.59 |
| 218958CX | Artesyn | NLP110-9608 | +5V@0.2-13A; +12V@0.2-6.5A; -12V@0-0.65A | 110.0W | 90-264@47-63 | 120 | UL/CUL/CSA/VDE | 101.99 | 91.79 | 82.59 |

* Primary Output

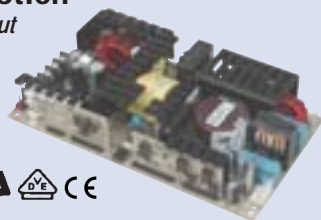
Corporate Customers

Even lower OEM pricing for larger orders! Call 1-800-831-4242 for details today.

150-Watt Open Frame With Power Factor Correction

NLP150 Series: Single & Quad Output

- 100% full-load burn-in
- Universal AC input
- Power Factor Correction
- 4.3 watts/in³ maximum
- 150W with 300LFM of air
- Load regulation: ±2.0%
- Line regulation: ±2.0%
- Inrush current: 40A@120VAC
- Isolation voltage: 3000VAC
- Leakage current: 0.99mA@240V
- Parallel operation (current sharing)
- Weight: 1.2 lbs.
- Size: 6.8"L x 3.8"W x 1.26"H
- Mounting holes: 6.45"L x 3.45"W x 0.156"Dia.
- Mating connectors: P/N 104432CX, pg 79 & 103587CX, pg 65
- 0° to +70°C working temperature (see www.Jameco.com)



150-Watt Open Frame With Power Factor Correction

LPP-150 Series: Single Output

- 100% full-load burn-in
- Auto-switch AC input
- No minimum load required
- 3.6 watts/in³ maximum
- 105°C output capacitor
- Power Factor Correction
- Load regulation: 213698CX & 213680CX: ±1.0%; 213671CX & 216645CX: ±0.5%
- Line regulation: ±0.5%
- Inrush current: 40A@120VAC
- Isolation voltage: 3000VAC
- Three-year warranty
- Size: 8.74"L x 2.95"W x 1.61"H
- Mounting holes: 8.34"L x 2.55"W x 0.13"Dia.
- Mating connectors: P/N 215950CX & 215968CX, pg 79
- -10°C to +60°C working temperature (see www.Jameco.com)



- Leakage current: 3.5mA@240V
- Voltage adjustment: 10%
- Weight: 1.2 lbs.

For Complete Specifications visit www.Jameco.com.

Enclosed Power Supplies
on pages 118-129.

| Jameco Part No. | Manufacturer | Manufacturer Product Number | Output | | Input (VAC @ Hz) | Ripple & Noise (mV p-p)* | Certification | Price | | |
|-----------------|--------------|-----------------------------|---|--------|------------------|--------------------------|---------------|----------|---------|---------|
| | | | Voltage@Current (min-max) | Power | | | | 1 | 10 | 25 |
| 218991CX | Artesyn | NLP150L-96S3 | +3.3V@1-22A | 72.6W | 90-264@47-63 | 50 | UL/CSA/VDE/CE | \$110.69 | \$99.65 | \$89.69 |
| 219011CX | Artesyn | NLP150L-96S5 | +5.1V@1-22A | 112.2W | 90-264@47-63 | 50 | UL/CSA/VDE/CE | 110.69 | 99.65 | 89.69 |
| 219002CX | Artesyn | NLP150L-96S8 | +24V@0.15-4.6A | 110.4W | 90-264@47-63 | 240 | UL/CSA/VDE/CE | 110.69 | 99.65 | 89.69 |
| 219029CX | Artesyn | NLP150L-96Q5366 | +3.3V@0.5-10A; +5.1V@1.5-20A; +12V@0-2A; +12V@0-0.65A | 120.0W | 90-264@47-63 | 50 | UL/CSA/VDE/CE | 110.69 | 99.65 | 89.69 |
| 213698CX | Mean Well | LPP-150-5 | +5V@0-30A | 150.0W | 85-264@47-63 | 100 | UL/CUL/TUV/CE | 47.95 | 43.29 | 38.95 |
| 213680CX | Mean Well | LPP-150-12 | +12V@0-12.5A | 150.0W | 85-264@47-63 | 100 | UL/CUL/TUV/CE | 71.95 | 53.89 | 47.29 |
| 213671CX | Mean Well | LPP-150-24 | +24V@0-6.3A | 150.0W | 85-264@47-63 | 150 | UL/CUL/TUV/CE | 71.95 | 53.89 | 47.29 |
| 216645CX | Mean Well | LPP-150-48 | +48V@0-3.2A | 153.6W | 85-264@47-63 | 250 | UL/CUL/TUV/CE | 71.95 | 53.89 | 47.29 |

* Primary Output

Other Versions
Available: Call
800-831-4242

Quantity

Special Offers at Great Savings – 90-Day Warranty

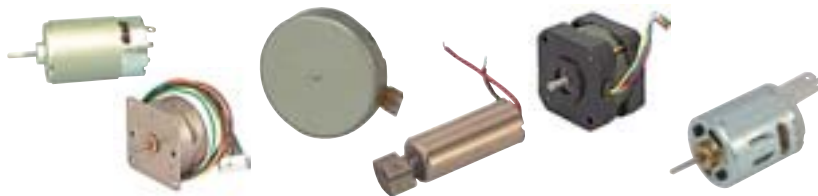
| Jameco Part No. | Mfr. | Manufacturer Product No. | Output | | Input (VAC @ Hz) | Size Inches (LxWxH) | Mounting Holes Inches (LxWxDia.) | Ripple & Noise (mV p-p)* | Load Reg. (±%)* | Line Reg. (±%)* | Certification | Price | | |
|-----------------|-------------|--------------------------|--|--------|------------------|---------------------|----------------------------------|--------------------------|-----------------|-----------------|-------------------|---------|---------|--------|
| | | | Voltage@Current (min-max) | Power | | | | | | | | 1 | 10 | 50 |
| 208670CX | Power-One | MPU1503300S240 | +3.3V@30A; +12V@3A | 135.0W | 85-250@50-60 | 8.1x4.2x1.5 | 6.5x3.8x0.16 | 50 | 1.5 | 0.6 | UL/CSA/TUV | \$13.19 | \$11.19 | \$8.39 |
| 196795CX | Cherokee | QP2A2-1A-A | +5V@40A; +12V@2.5A | 230.0W | 115/230@50-60 | 10.0x4.3x2.5 | 7.5x3.0x0.15 | 50 | 0.25 | 0.25 | TUV | 11.95 | 10.79 | 9.69 |
| 204581CX | Digital Pwr | UP300-201 | +5V@1-40A; +12V@0.2-12A | 300.0W | 90-250@47-63 | 8.0x4.5x2.0 | 7.6x3.2x0.10 | 50 | 1.0 | 0.2 | UL/CUL/CSA/TUV/CE | 34.75 | 31.25 | 28.12 |
| 208733CX | Digital Pwr | USS256-351 | +5.5V@1.8A; +12.9V@10A; +12.9V@0.9A | 250.0W | 90-250@47-63 | 10.0x4.5x1.9 | — | — | — | — | UL/CUL/CSA/TUV/CE | 21.35 | 19.39 | 17.65 |
| 220193CX | Cherokee | MQT154A1† | +3.3V@8A; +5V@26A; +12V@6A; -12V@1A | 150.0W | 100-240@47-63 | 8.0x4.3x1.5 | 6.4x2.5x0.13 | — | — | — | UL/CSA | 28.95 | 23.19 | 17.39 |
| 210876CX | EOS | VLT130-4100 † | +3.3V@0.5-16A; +5V@0.5-14A; +12V@0.1-1.5A; -12V@0.1-1.5A | 130.0W | 100-240@50-60 | 5.0x3.0x0.9 | 4.6x2.6x0.16 | 50 | 1.0 | 0.3 | UL/CUL/VDE/CE | 19.95 | 17.95 | 15.95 |
| 196701CX | Astec | NTQ123 | +3.3V@0-25A; +5V@2-24A +12V@0-2A; -12V@0-1A | 120.0W | 85-264@47-63 | 7.0x4.0x1.5 | — | 50 | — | — | UL/CSA/VDE/CE | 28.95 | 25.95 | 19.95 |
| 211297CX | Power-One | MAP110-4300 † | +3.3V@15A; +5V@8A; +12V@1A; -12V@1A | 110.0W | 85-264@47-63 | 7.0x4.3x2.0 | 6.5x2.8x0.17 | 30 | 0.7 | 0.3 | UL/CSA/TUV/CE | 29.95 | 22.49 | 15.75 |
| 204505CX | IPD Power | SRW-115-4001 | +5V@12A; +12V@4A; -5V@4A; -12V@2A | 115.0W | 85-264@47-63 | 7.0x4.3x1.2 | 6.0x3.8x0.16 | — | 1.0 | — | UL/CUL/TUV/CE | 18.69 | 16.99 | 15.49 |
| 206906CX | SSI | SQM200-1221 | +5V@30A; +12V@7A; +12V@5A; ±5V@5A | 200.0W | 100/240@50-60 | 10.5x5.0x2.5 | 10.0x4.4x0.14 | 50 | 1.0 | 0.2 | UL/CSA/TUV | 18.79 | 17.09 | 15.55 |
| 210905CX | Lambda | WA305-00-03 | +5V@50A; +12V@10A; +24V@4A; -5.2V@4A; -12V@4A | 300.0W | 85-264@45-440 | 11.9x5.0x1.8 | 8.1x2.5x0.16 | 50 | 1.0 | 0.2 | CE | 49.95 | 37.49 | 26.25 |
| 196461CX | TODD | MAX3541205AC | +5V@50A; +12V@12A; -5V@2A; -12V@4A | 350.0W | 115/230@50-60 | 9.0x5.0x2.5 | 6.5x3.9x0.08 | 50 | 1.0 | 1.0 | TUV | 47.95 | 40.79 | 30.59 |

* Primary Output

† 8" power cable included

† Power Factor Correction

Jameco's expanded selection of motors is on pages 90-95. We stock the largest selection of DC, Stepper, Vibrating, Gear Head, Unipolar and Bipolar Motors.



DIN-Rail Switching and Linear AC-to-DC Power Supplies

Color Code Legend
New Sale Qty Save Closeout

DIN-Rail Switching Power Supplies

- Low cost, high reliability
- Soft-start circuit, limiting AC surge current
- Short-circuit, overload, over-voltage protected
- 100% full-load burn-in test
- For DIN-Rail terminal blocks see page 87

Additional
Mounting Rails see
www.Jameco.com



| Part No. | Product No. | Power (W) | Output Volts@Current | Input Voltage (VAC @ Hz/VDC) | Input Current @ Maximum Load | Size (L" x W" x H") | Wt. (lbs.) | 1 | 10 | 25 |
|----------|-------------|-----------|----------------------|------------------------------|------------------------------|---------------------|------------|---------|---------|---------|
| 212302CX | DR-4505 | 25 | 5VDC @ 5A | 85-264 @ 47-63/120-370 | 1.5A(115V)/750mA(230V) | 3.0 x 2.6 x 3.6 | 0.9 | \$45.95 | \$35.19 | \$32.99 |
| 192698CX | DR-4512 | 42 | 12VDC @ 3.5A | 85-264 @ 47-63/120-370 | 1.5A(115V)/750mA(230V) | 3.0 x 2.6 x 3.6 | 0.7 | 45.95 | 35.19 | 32.99 |
| 221874CX | DR-4515 | 42 | 15VDC @ 2.8A | 85-264 @ 47-63/120-370 | 1.5A(115V)750mA(230V) | 3.0 x 2.6 x 3.6 | 0.9 | 45.95 | 35.19 | 32.99 |
| 192680CX | DR-4524 | 48 | 24VDC @ 2A | 85-264 @ 47-63/120-370 | 1.5A(115V)/750mA(230V) | 3.0 x 2.6 x 3.6 | 0.7 | 45.95 | 35.19 | 32.99 |
| 212290CX | DR-7512 | 75 | 12VDC @ 6.3A | 85-264 @ 47-63/120-370 | 2.0A(115V)/1.2A(230V) | 3.9 x 2.1 x 4.9 | 1.2 | 73.95 | 56.09 | 51.69 |
| 212281CX | DR-7524 | 75 | 24VDC @ 3.2A | 85-264 @ 47-63/120-370 | 2.0A(115V)/1.2A(230V) | 3.9 x 2.1 x 4.9 | 1.2 | 73.95 | 56.09 | 51.69 |
| 221866CX | DR-7548 | 75 | 48VDC @ 1.6A | 85-264 @ 47-63/120-370 | 2.0A(115V)/1.2A(230V) | 3.9 x 2.1 x 4.9 | 1.2 | 73.95 | 56.09 | 51.69 |
| 212273CX | DR-12012 | 120 | 12VDC @ 10A | 88-132/176-264* @ 47-63 | 2.8A(115V)/1.7A(230V) | 2.6 x 3.9 x 4.9 | 1.4 | 85.95 | 64.89 | 60.49 |
| 212265CX | DR-12024 | 120 | 24VDC @ 5A | 88-132/176-264* @ 47-63 | 2.8A(115V)/1.7A(230V) | 2.6 x 3.9 x 4.9 | 1.4 | 85.95 | 64.89 | 60.49 |
| 221903CX | DR-12048 | 120 | 48VDC @ 2.5A | 88-132/176-264* @ 47-63 | 2.8A(115V)/1.7A (230V) | 2.6 x 3.9 x 4.9 | 1.4 | 85.95 | 58.99 | 54.99 |
| 221891CX | DRP-24024† | 240 | 24VDC @ 10A | 85-264 @ 47-63/120-370 | 3.5A (115V)/1.8A(230V) | 3.9 x 4.9 x 4.9 | 2.4 | 156.95 | 112.19 | 104.49 |
| 221882CX | DRP-24048† | 240 | 48VDC @ 5.0A | 85-264 @ 47-63/120-370 | 3.5A(115V)/1.8A(230V) | 3.9 x 4.9 x 4.9 | 2.4 | 156.95 | 112.19 | 104.49 |
| 252662CX | DRP-48024† | 480 | 24VDC @ 20.0A | 180-264 @ 47-63/25-370 | 4.0A(230V) | 8.9 x 3.9 x 4.9 | 4.6 | 243.29 | 218.95 | 197.09 |
| 252654CX | DRP-48048† | 480 | 48VDC @ 10.0A | 180-264 @ 47-63/25-370 | 4.0A(230V) | 8.9 x 3.9 x 4.9 | 4.6 | 243.29 | 218.95 | 197.09 |

*Switch selectable † With Power Factor Correction

DIN Mounting Rail

DIN rail enables easy installation of components such as fuseable terminal blocks & power supplies configured for DIN mounting.



| Part No. | Product No. | Description | Material | Type | Length | 1 | 10 | 100 |
|----------|-------------|-------------|-----------------------------|----------|---------------|--------|--------|--------|
| 248735CX | 2094.0 | Prepunched | Zinc bichromate plate steel | TS35x7.5 | 1 meter (39") | \$6.79 | \$5.45 | \$4.10 |

13.8VDC Precision Regulated Power Supplies

- Output voltage: 13.8VDC
- Heavy duty 5'8" 3-prong power cord
- Short-circuit protection
- Output mating terminals: see page 83 for cigarette plugs & page 208 for banana terminal plugs
- Input voltage: 115VAC @ 60Hz
- Illuminated rocker switch
- Fuse protected

135845CX
Banana/
Cigarette



136581CX
Banana
terminal



138667CX
Banana
terminal
(rear)



| Part No. | Model No. | Power (W) | Output Current (A) | Output Terminals | Size (L" x W" x H") | Wt. (lbs.) | 1 | 10 | 25 |
|----------|-----------|-----------|--------------------|-----------------------------------|---------------------|------------|---------|---------|---------|
| 135845CX | RPS1204 | 55.2 | 4 | Banana terminals / cigarette plug | 6.7 x 5.2 x 3.2 | 5.5 | \$29.95 | \$26.95 | \$23.95 |
| 136581CX | RPS1207† | 96.6 | 7 | Banana terminals | 8.7 x 5.7 x 3.6 | 8.5 | 59.95 | 53.95 | 48.95 |
| 138667CX | 38-381 | 138.0 | 10 | Banana terminals (rear) | 7.0 x 6.6 x 4.3 | 10.0 | 69.95 | 62.95 | 56.95 |
| 138675CX | 52-192012 | 276.0 | 20 | Banana terminals | 10.0 x 7.8 x 4.4 | 15.9 | 109.95 | 99.95 | 89.95 |

† P/N 136581CX includes overheating protection

ACDC Electronics

45-Watt Linear Power Supply

- Output voltage: 15V @ 3A
- Input voltage: 115VAC @ 50-60Hz
- Input connector: 0.173" solder terminals
- Output connector: solder studs
- Size: 5.6"L x 5.0"W x 3.0"H
- Weight: 4.0 lbs.

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 214615CX | ECV15N3 | \$19.87 | \$18.07 | \$16.42 |

SALE



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6 to 10-Amp Non-Isolated, Point-of-Load DC-to-DC Converters

6-Amp SIL06C Series

- di/dt: 10A/μs
- No minimum load
- Remote ON/OFF
- Ultra-wide trim range
- "Power good" signal
- Planar magnetics technology
- Protection: over-current & short-circuit
- Working temperature: 0° to +80°C (derated above 50°C)
- 100% burn-in test
- Very high MTBF
- Two-year warranty

ARTESYN

219150CX



219168CX

10-Amp SIL10E Series

- di/dt: 10A/μs
- No minimum load
- Remote ON/OFF
- 96% efficiency at 3.3V
- Highest power density: 107W/in³
- Planar magnetics technology
- Protection: thermal & short-circuit
- Working temperature: -40° to +100°C (derated above 70°C)
- 100% burn-in test
- Very high MTBF
- Two-year warranty
- Remote sense

ARTESYN

219141CX



SALE

| Mfr. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Temp. °C | Efficiency (%) | MTBF (hours) | Jameco Part No. | Price | | | |
|---------|-----------------------------|-------------|-----------------|-------|---------------------|------|----------------|----------------|-------------|----------------|--------------|-----------------|--------|--------|--------|--------|
| | | | Voltage@Current | Power | | | | | | | | | 1 | 10 | 25 | 100 |
| Artesyn | SIL06C-05SADJ-V | 4.5V-5.5V | 0.9-3.3V@6A | 20W | 1.2x0.6x0.07 | 8 | 0.2 | 0.5 | 0 to +80 | 89 | 1,300,000 | 219150CX | \$9.69 | \$9.45 | \$9.22 | \$8.99 |
| Artesyn | SIL06C-05SADJ-H | 4.5V-5.5V | 0.9-3.3V@6A | 20W | 1.2x0.6x0.53 | 8 | 0.2 | 0.5 | 0 to +80 | 89 | 1,300,000 | 219168CX | 9.69 | 9.45 | 9.22 | 8.99 |
| Artesyn | SIL10E-05S1V8-V | 3.0V-5.5V | 1.8V@10A | 18W | 2.0x0.5x0.31 | 11 | 1.0 | 1.0 | -40 to +100 | 92 | 7,042,000 | 219141CX | 20.25 | 19.16 | 18.07 | 16.99 |
| Artesyn | SIL10E-05S2V5-V | 3.0V-5.5V | 2.5V@10A | 25W | 2.0x0.5x0.31 | 11 | 1.0 | 1.0 | -40 to +100 | 94 | 7,042,000 | 219133CX | 20.25 | 19.16 | 18.07 | 16.99 |
| Artesyn | SIL10E-05W3V3-V | 4.5V-5.5V | 0.8-3.6V@10A | 33W | 2.0x0.5x0.31 | 11 | 1.0 | 1.0 | -40 to +100 | 95 | 7,042,000 | 219117CX | 20.25 | 19.16 | 18.07 | 16.99 |
| Artesyn | SIL10E-05S3V3-V | 4.5V-5.5V | 3.3V@10A | 33W | 2.0x0.5x0.31 | 11 | 1.0 | 1.0 | -40 to +100 | 95 | 7,042,000 | 219125CX | 20.25 | 19.16 | 18.07 | 16.99 |

15 to 30-Amp Non-Isolated, Point-of-Load DC-to-DC Converters

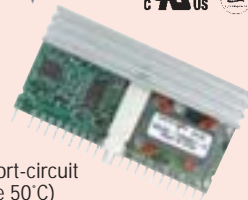
15-Amp SIL15C Series

- di/dt: 10A/μs
- 100% burn-in test
- No minimum load
- Remote ON/OFF
- Very high MTBF
- 91% efficiency
- Two-year warranty
- "Power good" signal
- Ultra-wide trim range
- Planar magnetics technology
- Protection: over-current & short-circuit
- Working temperature: 0° to +80°C (derated above 50°C)



30-Amp SIL30C Series

- di/dt: 10A/μs
- 100% burn-in test
- No minimum load
- Very high MTBF
- Remote ON/OFF
- Two-year warranty
- 91% efficiency
- Ultra-wide trim range
- Horizontal & vertical models
- "Power good" signal
- Planar magnetics technology
- Protection: over-current, over-temperature & short-circuit
- Working temperature: 0° to +80°C (derated above 50°C)



For Complete Specifications visit www.Jameco.com.

| Mfr. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (%) | Load Reg. (%) | Temp. °C | Efficiency (%) | MTBF (hours) | Jameco Part No. | Price | | | |
|---------|-----------------------------|-------------|-----------------|-------|---------------------|------|---------------|---------------|----------|----------------|--------------|-----------------|---------|---------|---------|---------|
| | | | Voltage@Current | Power | | | | | | | | | 1 | 10 | 25 | 100 |
| Artesyn | SIL15C-05SADJ-V | 4.5V-5.5V | 0.9V-3.3V@15A | 50W | 1.20x1.10x0.40 | 13 | 0.2 | 0.5 | 0 to +80 | 89 | 7,817,000 | 218886CX | \$13.89 | \$13.35 | \$12.82 | \$12.29 |
| Artesyn | SIL15C-12SADJ-V | 10.2V-13.8V | 0.9V-5V@15A | 75W | 1.20x1.10x0.40 | 13 | 0.2 | 0.5 | 0 to +80 | 91 | 7,817,000 | 218878CX | 16.65 | 15.19 | 13.74 | 12.29 |
| Artesyn | SIL30C-12SADJ-V | 10.2V-13.8V | 0.9V-5V@30A | 150W | 2.40x1.25x0.47 | 24 | 0.2 | 1.0 | 0 to +80 | 91 | 3,990,000 | 218860CX | 23.95 | 22.40 | 20.85 | 19.31 |

SALE

0.5 to 5-Watt Isolated DC-to-DC Converters

0.5 & 1-Watt Regulated & Unregulated Encapsulated

SRS05 & SPR01 Series: Single Output

- 1000VDC isolation
- Protection: short-circuit
- 100% burn-in test
- Very high MTBF
- Input filter: capacitor type
- Ripple & noise: 100 mV p-p
- No external components needed
- One-year warranty
- Switching frequency: 100kHz, except P/N 213225CX: 500kHz
- Working temperature: -15 to +60°C @ full load; -25 to +71°C @ 80% load



Other Versions Available: Call 800-831-4242



SALE

| Jameco Part No. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (%) | Load Reg. (%) | Weight (lbs.) | Price | | | |
|-----------------|-----------------------------|-------------|-----------------|-------|---------------------|------|---------------|---------------|---------------|--------|--------|--------|--------|
| | | | Voltage@Current | Power | | | | | | 1 | 10 | 25 | 100 |
| 213225CX | SRS-0505 | 4.5-5.5V | +5V@100mA | 0.5W | 0.88x0.39x0.33 | 8 | 1.0 | 1.0 | 0.01 | \$6.49 | \$5.89 | \$5.35 | \$4.85 |
| 216830CX | SPR01L-12 | 4.5-5.5V | +12V@84mA | 1.0W | 0.77x0.28x0.4 | 4 | 1.0 | 1.0 | 0.01 | 9.95 | 8.95 | 8.09 | 7.28 |
| 216848CX | SPR01L-15 | 4.5-5.5V | +15V@67mA | 1.0W | 0.77x0.28x0.4 | 4 | 1.0 | 1.0 | 0.01 | 7.09 | 6.45 | 5.86 | 5.33 |

3 & 5-Watt Regulated Encapsulated

DCW03, SCW03, DLW05 & SLW05 Series: Single & Dual Outputs

- 1000VDC isolation
- Input filter: Pi network
- No external components needed
- 2:1 wide input range
- Free-air convection cooling
- Very high MTBF
- Protection: short-circuit & overload
- 100% burn-in test
- Ripple & noise: 100 mV p-p
- Switching frequency: 50kHz, except SCW03 and DCW03 series: 25kHz
- Shielded metal case
- Working temperature: -15 to +60°C @ full load; -25 to +71°C @ 80% load
- Industry standard package
- One-year warranty



| Jameco Part No. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (%) | Load Reg. (%) | Weight (lbs.) | Price | | | |
|-----------------|-----------------------------|-------------|------------------------|-------|---------------------|------|---------------|---------------|---------------|---------|---------|---------|---------|
| | | | Voltage@Current | Power | | | | | | 1 | 10 | 25 | 100 |
| 213268CX | SCW03A-05 | 9-18V | +5V@600mA | 3.0W | 1.25x0.8x0.48 | 10 | 1.0 | 0.5 | 0.03 | \$15.49 | \$13.95 | \$12.59 | \$11.29 |
| 155918CX | DCW03A-05 | 9-18V | +5V@300mA; -5V@300mA | 3.0W | 1.25x0.8x0.48 | 10 | 1.0 | 0.5 | 0.03 | 20.95 | 18.89 | 16.99 | 15.29 |
| 161701CX | DCW03A-12 | 9-18V | +12V@125mA; -12V@125mA | 3.0W | 1.25x0.8x0.48 | 10 | 1.0 | 0.5 | 0.03 | 20.95 | 18.89 | 16.99 | 15.29 |
| 220388CX | SLW05L-12 | 4.5-9V | +12V@417mA | 5.0W | 1.98x0.99x0.44 | 5 | 0.2 | 0.5 | 0.07 | 24.95 | 22.49 | 20.25 | 18.25 |
| 220370CX | SLW05L-15 | 4.5-9V | +15V@333mA | 5.0W | 1.98x0.99x0.44 | 5 | 0.2 | 0.5 | 0.07 | 18.98 | 17.26 | 15.69 | 14.26 |
| 220353CX | SLW05A-033 | 9-18V | +3.3V@1500mA | 5.0W | 1.98x0.99x0.44 | 5 | 0.2 | 0.5 | 0.07 | 24.95 | 22.49 | 20.25 | 18.25 |
| 216928CX | SLW05A-05 | 9-18V | +5V@1000mA | 5.0W | 1.98x0.99x0.44 | 5 | 1.0 | 0.2 | 0.07 | 24.95 | 22.49 | 20.25 | 18.25 |
| 216881CX | SLW05A-15 | 9-18V | +15V@333mA | 5.0W | 1.98x0.99x0.44 | 5 | 1.0 | 0.2 | 0.07 | 24.95 | 22.49 | 20.25 | 18.25 |
| 220361CX | SLW05B-033 | 18-36V | +3.3V@1500mA | 5.0W | 1.98x0.99x0.44 | 5 | 0.2 | 0.5 | 0.07 | 18.98 | 17.26 | 15.69 | 14.26 |
| 216936CX | SLW05B-05 | 18-36V | +5V@1000mA | 5.0W | 1.98x0.99x0.44 | 5 | 1.0 | 0.2 | 0.07 | 24.95 | 22.49 | 20.25 | 18.25 |
| 216910CX | SLW05B-12 | 18-36V | +12V@417mA | 5.0W | 1.98x0.99x0.44 | 5 | 1.0 | 0.2 | 0.07 | 24.95 | 22.49 | 20.25 | 18.25 |
| 216872CX | SLW05B-15 | 18-36V | +15V@333mA | 5.0W | 1.98x0.99x0.44 | 5 | 1.0 | 0.2 | 0.07 | 19.45 | 17.69 | 16.08 | 14.62 |
| 213233CX | SLW05C-05 | 36-72V | +5V@1000mA | 5.0W | 1.98x0.99x0.44 | 5 | 1.0 | 0.2 | 0.07 | 17.22 | 15.50 | 13.95 | 12.56 |
| 216901CX | SLW05C-12 | 36-72V | +12V@417mA | 5.0W | 1.98x0.99x0.44 | 5 | 1.0 | 0.2 | 0.07 | 19.46 | 17.69 | 16.08 | 14.62 |
| 216864CX | DLW05B-12 | 18-36V | +12V@208mA; -12V@208mA | 5.0W | 1.98x0.99x0.44 | 5 | 0.2 | 0.2 | 0.07 | 28.95 | 26.09 | 23.15 | 20.85 |

Special Offers at Great Savings – 90-Day Warranty

- Temperature: -25° to +70°C
- Weight: 0.03 lbs.

SALE

| Jameco Part No. | Manufacturer | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Ripple & Noise (mV p-p) | Line Reg. (%) | Load Reg. (%) | Switching Freq. (Hz) | Isolation Voltage | Price | | | |
|-----------------|--------------|-----------------------------|-------------|-----------------|-------|---------------------|------|-------------------------|---------------|---------------|----------------------|-------------------|--------|--------|--------|--------|
| | | | | Voltage@Current | Power | | | | | | | | 1 | 10 | 25 | 100 |
| 206076CX | Trimag | TDB4W-4805S | 36-72V | +5V@500mA | 3.0W | 1.2x0.8x0.5 | 12 | 50 | 1.0 | 1.0 | 25k | 500 | \$7.85 | \$7.15 | \$6.49 | \$5.89 |

10 to 15-Watt Isolated DC-to-DC Converters

Color Code Legend
New Sale Qty Save Closeout

Other Versions
Available: Call
800-831-4242

10-Watt Open Frame

CXA10 Series: Single Output

- Isolation voltage: 1500VDC
- Protection: short-circuit & overload
- Two-year warranty
- Switching frequency: 400kHz
- Industry standard footprint
- 100% burn-in test
- Very high MTBF
- Ripple & noise: 30mV p-p
- Remote ON/OFF
- 4:1 input voltage range
- UL/CUL/CSA/VDE/CE approved
- Working temp.: -40 to +100°C (see www.Jameco.com)

The CXA10 series has a wide 4:1 input voltage range of 18 to 75 VDC. The CXA10 has been designed as a competitive open-frame alternative for the communications market, featuring an industry-standard footprint of 2" x 1" x 0.4". Planar magnetics are used in the design to improve reliability and reduce the profile. The series has full international safety approval to EN60950 and UL1950, reducing system compliance costs. The basic insulation system from input to output makes it suitable for a wide variety of applications.

| Jameco Part No. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Weight (lbs.) | Price | | | |
|-----------------|-----------------------------|-------------|-----------------|-------|---------------------|------|----------------|----------------|---------------|---------|---------|---------|---------|
| | | | Voltage@Current | Power | | | | | | 1 | 10 | 25 | 100 |
| 219037CX | CXA10-48S3V3 | 18-75V | +3.3V@2400mA | 7.9W | 2.0x1.0x0.536 | 6 | 0.1 | 0.2 | 0.03 | \$38.89 | \$36.07 | \$33.25 | \$30.44 |
| 219045CX | CXA10-48S05 | 18-75V | +5.0V@2000mA | 10.0W | 2.0x1.0x0.536 | 6 | 0.1 | 0.2 | 0.03 | 38.89 | 36.07 | 33.25 | 30.44 |

15-Watt Open Frame

CXE15 Series: Single Output

- Isolation voltage: 1500VDC
- Protection: over-voltage & over-current
- Two-year warranty
- 87% efficiency at 5V
- Ripple & noise: 219070CX/219088CX: 40mV p-p; 219053CX/219061CX 70mV p-p
- Industry standard footprint
- 100% burn-in test
- Remote ON/OFF
- No minimum load
- Switching frequency: 265kHz
- UL/CUL/TUV/CE approved
- Output trim
- Planar magnetics technology
- Working temperature: -40° to +65°C

The CXE15 is a high-efficiency, open-frame, isolated 15-watt DC-to-DC converter series in an industry standard footprint. The output voltage on each model is adjustable from 90% to 110% of the nominal value. With full international safety approval including EN60950 and UL1950, the CXE15 reduces compliance cost and time to market.

| Jameco Part No. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Weight (lbs.) | Price | | | |
|-----------------|-----------------------------|-------------|-----------------|-------|---------------------|------|----------------|----------------|---------------|---------|---------|---------|---------|
| | | | Voltage@Current | Power | | | | | | 1 | 10 | 25 | 100 |
| 219070CX | CXE15-48S1V8 | 33-75V | +1.8V@6000mA | 10.8W | 2.0x1.0x0.35 | 6 | 0.3 | 2.0 | 0.03 | \$42.49 | \$39.31 | \$36.13 | \$32.95 |
| 219088CX | CXE15-48S2V5 | 33-75V | +2.5V@6000mA | 15.0W | 2.0x1.0x0.35 | 6 | 0.3 | 1.5 | 0.03 | 42.49 | 39.31 | 36.13 | 32.95 |
| 219053CX | CXE15-48S3V3 | 33-75V | +3.3V@4500mA | 15.0W | 2.0x1.0x0.35 | 6 | 0.1 | 0.5 | 0.03 | 42.49 | 39.31 | 36.13 | 32.95 |
| 219061CX | CXE15-48S05V | 33-75V | +5V@3000mA | 15.0W | 2.0x1.0x0.35 | 6 | 0.1 | 0.5 | 0.03 | 42.49 | 39.31 | 36.13 | 32.95 |

10-Watt Encapsulated

SKE10 & DKE10 Series: Single & Dual Outputs

- Isolation voltage: 1000VDC
- Protection: short-circuit & overload
- Ripple & noise: 60mV p-p, except for 216961CX/220337CX/216952CX/220345CX/216944CX/217031CX/217058CX/217040CX: 50 mV p-p
- Working temperature: -15 to +60°C @ full load; -25 to +71°C @ 80% load
- Switching frequency: 250kHz, except for 216961CX/217007CX/216979CX: 300kHz & 220337CX/220345CX: 200kHz
- Input filter: Pi-network
- One-year warranty
- 100% burn-in test
- Very high MTBF
- 2:1 wide input range
- Shielded metal case
- Industry standard package
- Free-air convection cooling

The Mean Well SKE10 & DKE10 families of regulated DC-to-DC converters include popular single and dual-output 10-watt configurations. The industry-standard package size supports full power with free-air convection. Performance features include a wide input voltage range of 2:1 and the use of a pi-network input filter for low noise operation.

| Jameco Part No. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Weight (lbs.) | Price | | | |
|-----------------|-----------------------------|-------------|------------------------|-------|---------------------|------|----------------|----------------|---------------|---------|---------|---------|---------|
| | | | Voltage@Current | Power | | | | | | 1 | 10 | 25 | 100 |
| 216961CX | SKE10A-05 | 9-18V | +5V@2000mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 1.0 | 0.07 | \$33.95 | \$30.55 | \$26.95 | \$24.55 |
| 217007CX | SKE10A-12 | 9-18V | +12V@840mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 1.0 | 0.07 | 25.84 | 23.49 | 21.36 | 19.41 |
| 216979CX | SKE10A-15 | 9-18V | +15V@666mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 1.0 | 0.07 | 33.95 | 30.55 | 26.95 | 24.55 |
| 220337CX | SKE10B-033 | 18-36V | +3.3V@2400mA | 8.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 33.95 | 30.55 | 26.95 | 24.55 |
| 216952CX | SKE10B-05 | 18-36V | +5V@2000mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 33.95 | 30.55 | 26.95 | 24.55 |
| 217023CX | SKE10B-12 | 18-36V | +12V@840mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 33.95 | 30.55 | 26.95 | 24.55 |
| 216995CX | SKE10B-15 | 18-36V | +15V@666mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 25.84 | 23.49 | 21.36 | 19.41 |
| 220345CX | SKE10C-033 | 36-72V | +3.3V@2400mA | 8.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 33.95 | 25.99 | 23.39 | 21.05 |
| 216944CX | SKE10C-05 | 36-72V | +5V@2000mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 1.0 | 0.07 | 33.95 | 30.55 | 26.95 | 24.55 |
| 217015CX | SKE10C-12 | 36-72V | +12V@840mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 1.0 | 0.07 | 25.78 | 23.44 | 21.31 | 19.37 |
| 216987CX | SKE10C-15 | 36-72V | +15V@666mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 1.0 | 0.07 | 25.84 | 23.49 | 21.36 | 19.41 |
| 217031CX | DKE10A-05 | 9-18V | +5V@1000mA; -5V@1000mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 34.95 | 31.45 | 27.95 | 25.45 |
| 217091CX | DKE10A-12 | 9-18V | +12V@420mA; -12V@420mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 34.95 | 31.45 | 27.95 | 25.45 |
| 217111CX | DKE10A-15 | 9-18V | +15V@333mA; -15V@333mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 34.95 | 31.45 | 27.95 | 25.45 |
| 217058CX | DKE10B-05 | 18-36V | +5V@1000mA; -5V@1000mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 27.12 | 24.65 | 22.41 | 20.37 |
| 217082CX | DKE10B-12 | 18-36V | +12V@420mA; -12V@420mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 27.12 | 24.65 | 22.41 | 20.37 |
| 217074CX | DKE10B-15 | 18-36V | +15V@333mA; -15V@333mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 34.95 | 31.45 | 27.95 | 25.45 |
| 217040CX | DKE10C-05 | 36-72V | +5V@1000mA; -5V@1000mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 27.12 | 24.65 | 22.41 | 20.37 |
| 217103CX | DKE10C-12 | 36-72V | +12V@420mA; -12V@420mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 34.95 | 31.45 | 27.95 | 25.45 |
| 217066CX | DKE10C-15 | 36-72V | +15V@333mA; -15V@333mA | 10.0W | 1.98x0.99x0.44 | 5 | 0.3 | 0.5 | 0.07 | 27.12 | 24.65 | 22.41 | 20.37 |

20-Watt Open Frame

CXA20 Series: Single Output

- Isolation voltage: 1500VDC
- Remote ON/OFF
- No minimum load
- Planar magnetics technology
- Working temperature: -40° to +60°C (see www.Jameco.com)
- Protection: over-voltage, over-temperature & short-circuit
- Industry standard footprint
- 4:1 input voltage range
- Output trim
- UL/CUL/CSA/VDE/CE approved

- 100% burn-in test
- Ripple & noise: 75 mV p-p
- Switching frequency: 400kHz
- Two-year warranty



The CXA20 features a 4:1 input voltage range of 18 to 75VDC, making it suitable for a wide variety of communications and distributed power applications. Provides an easy upgrade option for those seeking a high-performance, cost-effective DC-to-DC converter.

SALE

| Jameco Part No. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Weight (lbs.) | Price | | | |
|-----------------|-----------------------------|-------------|-----------------|-------|---------------------|------|----------------|----------------|---------------|---------|---------|---------|---------|
| | | | Voltage@Current | Power | | | | | | 1 | 10 | 25 | 100 |
| 219109CX | CXA20-48S3V3 | 18-75V | +3.3V@6000mA | 19.8W | 2.0x1.6x0.41 | 8 | 0.1 | 0.2 | 0.06 | \$49.05 | \$45.39 | \$41.74 | \$38.09 |
| 219096CX | CXA20-48S05 | 18-75V | +5V@4000mA | 20.0W | 2.0x1.6x0.41 | 8 | 0.1 | 0.1 | 0.06 | 49.05 | 45.39 | 41.74 | 38.09 |

15-Watt Encapsulated

SKE15 & DKE15 Series: Single & Dual Outputs

- Isolation voltage: 1000VDC
- Protection: short-circuit & overload
- Free-air convection cooling
- Working temperature: -15° to +60°C @ full load; -25° to +71°C @ 80% load
- Ripple & noise: 155715CX/213276CX/217138CX: 50 mV p-p; 155707CX/213284CX/217120CX/161728CX/217154CX: 60 mV p-p; 155694CX/213292CX: 80 mV p-p
- Input filter: Pi network
- 100% burn-in test
- 2:1 wide input range
- Switching frequency: 150kHz
- Shielded metal case
- One-year warranty



SALE

The Mean Well SKE15 & DKE15 series are very popular regulated 15-watt DC-to-DC converters because of their low-cost, reliability, and industry-standard package. Continuous short-circuit protection and overload protection, both with auto-recovery, are standard features.

| Jameco Part No. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Weight (lbs.) | Price | | | |
|-----------------|-----------------------------|-------------|------------------------|-------|---------------------|------|----------------|----------------|---------------|---------|---------|---------|---------|
| | | | Voltage@Current | Power | | | | | | 1 | 10 | 25 | 100 |
| 155715CX | SKE15A-05 | 9-18V | +5V@3000mA | 15.0W | 2.0x2.0x0.43 | 5 | 0.3 | 0.5 | 0.15 | \$34.95 | \$31.49 | \$28.15 | \$25.35 |
| 155707CX | SKE15A-12 | 9-18V | +12V@1250mA | 15.0W | 2.0x2.0x0.43 | 5 | 0.3 | 0.5 | 0.15 | 34.95 | 31.19 | 28.15 | 25.35 |
| 155694CX | SKE15A-24 | 9-18V | +24V@625mA | 15.0W | 2.0x2.0x0.43 | 5 | 0.3 | 0.5 | 0.15 | 34.95 | 31.49 | 28.15 | 25.35 |
| 213276CX | SKE15B-05 | 18-36V | +5V@3000mA | 15.0W | 2.0x2.0x0.43 | 5 | 0.3 | 0.5 | 0.15 | 34.95 | 31.49 | 28.15 | 25.35 |
| 213284CX | SKE15B-12 | 18-36V | +12V@1250mA | 15.0W | 2.0x2.0x0.43 | 5 | 0.3 | 0.5 | 0.15 | 34.95 | 31.49 | 28.15 | 25.35 |
| 217138CX | SKE15C-05 | 36-72V | +5V@3000mA | 15.0W | 2.0x2.0x0.43 | 5 | 0.3 | 0.5 | 0.15 | 26.12 | 23.75 | 21.59 | 19.63 |
| 217120CX | SKE15C-12 | 36-72V | +12V@1250mA | 15.0W | 2.0x2.0x0.43 | 5 | 0.3 | 0.5 | 0.15 | 26.12 | 23.75 | 21.59 | 19.63 |
| 161728CX | DKE15A-12 | 9-18V | +12V@625mA; -12V@625mA | 15.0W | 2.0x2.0x0.43 | 5 | 0.3 | 0.5 | 0.15 | 35.95 | 32.35 | 29.15 | 24.25 |
| 213292CX | DKE15A-24 | 9-18V | +24V@313mA; -24V@313mA | 15.0W | 2.0x2.0x0.43 | 5 | 0.3 | 0.5 | 0.15 | 32.95 | 29.69 | 26.90 | 24.05 |
| 217162CX | DKE15B-15 | 18-36V | +15V@500mA; -15V@500mA | 15.0W | 2.0x2.0x0.43 | 5 | 0.3 | 0.5 | 0.15 | 27.36 | 24.88 | 22.61 | 20.56 |
| 217154CX | DKE15C-15 | 36-72V | +15V@500mA; -15V@500mA | 15.0W | 2.0x2.0x0.43 | 5 | 0.3 | 0.5 | 0.15 | 26.20 | 23.82 | 21.66 | 19.69 |

20-Watt Encapsulated

DKB20 & TKB20 Series: Dual & Triple Outputs

- Isolation voltage: 1000VDC
- Protection: short-circuit & overload
- Shielded metal case
- Input filter: Pi network
- Output trim
- Ripple & noise: 100 mV p-p
- Working temp.: -40° to +71°C
- 100% burn-in test
- Switching frequency: 100kHz
- Industry standard package
- Free-air convection cooling
- One-year warranty



The Mean Well DKB20 & TKB20 families of regulated DC-to-DC converters are superior for applications where the output voltage must stay within tight limits during extreme operating conditions. For ease of use, the DKB20 & TKB20 units require no external components and provide both voltage trim and remote ON/OFF capability.

| Jameco Part No. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Weight (lbs.) | Price | | | |
|-----------------|-----------------------------|-------------|------------------------|-------|---------------------|------|----------------|----------------|---------------|---------|---------|---------|---------|
| | | | Voltage@Current | Power | | | | | | 1 | 10 | 25 | 100 |
| 217630CX | DKB20A-05 | 9-18V | +5V@2000mA; -5V@2000mA | 20.0W | 1.2x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | \$44.95 | \$40.49 | \$36.45 | \$32.79 |
| 217584CX | DKB20A-12 | 9-18V | +12V@833mA; -12V@833mA | 20.0W | 1.2x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 36.60 | 33.27 | 30.25 | 27.50 |
| 217621CX | DKB20A-15 | 9-18V | +15V@667mA; -15V@667mA | 20.0W | 1.2x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 36.60 | 33.27 | 30.25 | 27.50 |
| 217592CX | DKB20B-12 | 18-36V | +12V@833mA; -12V@833mA | 20.0W | 1.2x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 36.60 | 33.27 | 30.25 | 27.50 |
| 217605CX | DKB20B-15 | 18-36V | +15V@667mA; -15V@667mA | 20.0W | 1.2x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 36.60 | 33.27 | 30.25 | 27.50 |
| 217576CX | DKB20C-12 | 36-72V | +12V@833mA; -12V@833mA | 20.0W | 1.2x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 36.60 | 33.27 | 30.25 | 27.50 |
| 217613CX | DKB20C-15 | 36-72V | +15V@667mA; -15V@667mA | 20.0W | 1.2x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 36.60 | 33.27 | 30.25 | 27.50 |
| 217656CX | TKB20A-B | 9-18V | +5V@2500mA; ±12V@310mA | 20.0W | 1.2x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 37.78 | 34.34 | 31.22 | 28.38 |
| 217664CX | TKB20B-B | 18-36V | +5V@2500mA; ±12V@310mA | 20.0W | 1.2x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 37.78 | 34.34 | 31.22 | 28.38 |
| 217672CX | TKB20B-C | 18-36V | +5V@2500mA; ±15V@250mA | 20.0W | 1.2x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 37.78 | 34.34 | 31.22 | 28.38 |
| 217648CX | TKB20C-B | 36-72V | +5V@2500mA; ±12V@310mA | 20.0W | 1.2x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 37.78 | 34.34 | 31.22 | 28.38 |

25 to 30-Watt Isolated DC-to-DC Converters

Other Versions Available: Call 800-831-4242

Color Code Legend
New Sale Qty. Save Closeout

25-Watt Enclosed

SD25 Series: Single Output

- Isolation voltage: 500VDC
- Shielded metal case
- Protection: short-circuit, overload and over-voltage
- Ripple & noise: 100 mV p-p, except 175804: 120 mV p-p and 175812: 150 mV p-p
- Mounting hardware use P/Ns 222121CX, 222164CX, 222156CX & 222172CX see www.Jameco.com for specifications
- Input filter: Pi-network
- Industry standard package
- Free-air convection cooling
- 105°C output capacitor
- Working temperature: -10° to +60°C (see www.Jameco.com)
- Very high MTBF
- 2:1 wide input range
- 100% burn-in test
- One-year warranty



Well known for its reliability and low cost, the Mean Well SD-25 family of enclosed DC-to-DC converters offers wide 2:1 input voltage ranges. The physical ruggedness is complemented by the many electrical protections; short-circuit, overload with auto-recovery, and over-voltage to 165% of rated output. The input-to-output isolation is 500VDC and the isolation resistance is 100MΩ at 500VDC. The highly-efficient, low-temperature design provides full power from 0°C to 40°C, with derating to -10°C and +60°C (see www.Jameco.com). The line and load regulation are both ±0.5% maximum. The Mean Well SD-25 series complies with EMC standards EN55022 class B and EN61000-4-2/3/4/6/8.

| Jameco Part No. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Weight (lbs.) | Price | | | |
|-----------------|-----------------------------|-------------|-----------------|-------|---------------------|------|----------------|----------------|---------------|---------|---------|---------|---------|
| | | | Voltage@Current | Power | | | | | | 1 | 10 | 25 | 100 |
| 175661CX | SD-25A-5 | 9-18V | +5V@5000mA | 25.0W | see www.Jameco.com | 5 | 0.5 | 0.5 | 0.80 | \$40.95 | \$30.99 | \$28.99 | \$24.99 |
| 175804CX | SD-25A-12 | 9-18V | +12V@2100mA | 25.2W | see www.Jameco.com | 5 | 0.3 | 0.3 | 0.80 | 40.95 | 30.99 | 28.99 | 24.99 |
| 175812CX | SD-25A-24 | 9-18V | +24V@1100mA | 26.4W | see www.Jameco.com | 5 | 0.2 | 0.2 | 0.80 | 40.95 | 30.99 | 28.99 | 24.99 |
| 216629CX | SD-25C-5 | 36-72V | +5V@5000mA | 25.0W | see www.Jameco.com | 5 | 0.5 | 0.5 | 0.80 | 34.54 | 31.40 | 28.54 | 25.95 |

30-Watt Encapsulated

DKA30 & TKA30 Series: Dual & Triple Output

- Isolation voltage: 1000VDC
- Protection: short-circuit & overload
- 2:1 wide input range
- Shielded metal case
- Working temperature: -40° to +71°C
- Input filter: Pi-network
- Free-air convection cooling
- Industry standard package
- Remote ON/OFF
- Very high MTBF
- Switching frequency: 100kHz
- Ripple & noise: 100 mV p-p
- 100% burn-in test
- One-year warranty
- Output trim



The Mean Well DKA30 & TKA30 families of regulated 30-watt DC-to-DC converters include popular dual and triple-output configurations packaged in six-sided, shielded metal cases. Load regulation applies for a load change of 10% to full load for both dual and triple-outputs. The industry-standard package supports full power with free-air convection over the ambient temperature range of -40°C to 71°C. Performance features include a wide input voltage range of 2:1 and the use of a pi-network input filter for low noise operation. The input-to-output isolation is an impressive 1000VDC, with I/O isolation resistance of 1000MΩ.

| Jameco Part No. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Weight (lbs.) | Price | | | |
|-----------------|-----------------------------|-------------|------------------------|-------|---------------------|------|----------------|----------------|---------------|---------|---------|---------|---------|
| | | | Voltage@Current | Power | | | | | | 1 | 10 | 25 | 100 |
| 217701CX | DKA30A-12 | 9-18V | ±12V@1250mA | 30.0W | 2.0x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | \$48.02 | \$43.65 | \$39.68 | \$36.08 |
| 218544CX | DKA30B-12 | 18-36V | ±12V@1250mA | 30.0W | 2.0x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 49.49 | 44.54 | 40.08 | 36.08 |
| 217699CX | DKA30C-12 | 36-72V | ±12V@1250mA | 30.0W | 2.0x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 48.02 | 43.65 | 39.68 | 36.08 |
| 217736CX | TKA30A-B | 9-18V | +5V@3500mA; ±12V@310mA | 25.0W | 2.0x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 51.46 | 46.78 | 42.53 | 38.66 |
| 217728CX | TKA30B-C | 18-36V | +5V@3500mA; ±15V@250mA | 25.0W | 2.0x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 51.46 | 46.78 | 42.53 | 38.66 |
| 217681CX | TKA30C-B | 36-72V | +5V@3500mA; ±12V@310mA | 25.0W | 2.0x2.0x0.82 | 8 | 0.2 | 0.2 | 0.25 | 51.46 | 46.78 | 42.53 | 38.66 |

30-Watt Encapsulated

SDM30 Series: Single Output

- Isolation voltage: 1000VDC
- Ripple & noise: 100 mV p-p, except 217200CX/217218CX/217226CX: 75 mV p-p
- Industry standard package
- Remote ON/OFF
- Very high MTBF
- Input filter: Pi-network
- 2:1 wide input range
- 100% burn-in test
- Output trim
- Protection: short-circuit, overload & over-voltage
- Free-air convection cooling
- Shielded metal case
- One-year warranty
- Working temperature: -25° to +85°C



With efficiency as high as 85%, this impressive family of 30-watt encapsulated DC-to-DC converters provides full power output with free-air convection cooling. The compact size of 2.0"x2.0"x0.63" and the 6-sided shielded metal case lend to its easy adaptability to numerous types of applications. Input voltage ranges are a full 2:1. Protection includes short-circuit, overload to 105% with auto-recovery, and over-voltage to 150% of rated output. The isolation voltage is 1000VDC and the resistance is 100MΩ at 500VDC. The SDM30 series features ±10% trimming output and remote ON/OFF control. They completely comply with EN55022 class B, FCC part 15J and EN60950 safety and EMI requirements.

| Jameco Part No. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Weight (lbs.) | Price | | | |
|-----------------|-----------------------------|-------------|-----------------|-------|---------------------|------|----------------|----------------|---------------|---------|---------|---------|---------|
| | | | Voltage@Current | Power | | | | | | 1 | 10 | 25 | 100 |
| 217200CX | SDM30-12S05 | 9-18V | +5V@5000mA | 25.0W | 2.0x1.8x0.62 | 8 | 1.0 | 1.0 | 0.22 | \$35.06 | \$31.87 | \$28.98 | \$26.34 |
| 217234CX | SDM30-12S12 | 9-18V | +12V@2100mA | 25.2W | 2.0x1.8x0.62 | 8 | 1.0 | 1.0 | 0.22 | 34.95 | 31.77 | 28.88 | 26.26 |
| 217218CX | SDM30-24S05 | 18-36V | +5V@5000mA | 25.0W | 2.0x1.8x0.62 | 8 | 1.0 | 1.0 | 0.22 | 35.95 | 32.68 | 29.71 | 27.01 |
| 217242CX | SDM30-24S12 | 18-36V | +12V@2500mA | 30.0W | 2.0x1.8x0.62 | 8 | 1.0 | 1.0 | 0.22 | 45.95 | 41.35 | 37.25 | 33.55 |
| 217171CX | SDM30-24S15 | 18-36V | +15V@2000mA | 30.0W | 2.0x1.8x0.62 | 8 | 1.0 | 1.0 | 0.22 | 35.06 | 31.87 | 28.98 | 26.34 |
| 217226CX | SDM30-48S05 | 36-72V | +5V@5000mA | 25.0W | 2.0x1.8x0.62 | 8 | 1.0 | 1.0 | 0.22 | 35.59 | 32.36 | 29.42 | 26.74 |
| 217251CX | SDM30-48S12 | 36-72V | +12V@2500mA | 30.0W | 2.0x1.8x0.62 | 8 | 1.0 | 1.0 | 0.22 | 35.06 | 31.87 | 28.98 | 26.34 |
| 217197CX | SDM30-48S15 | 36-72V | +15V@2000mA | 30.0W | 2.0x1.8x0.62 | 8 | 1.0 | 1.0 | 0.22 | 35.92 | 32.65 | 29.68 | 26.98 |



50 to 300-Watt Isolated DC-to-DC Converters

60-Watt Open Frame

EXQ60 Series Dual Outputs

- Isolation voltage: 1500VDC
- Protection: short-circuit, over-current & over-voltage
- 100% burn-in test
- 91% efficiency at 5V & 3.3V
- Planar magnetics technology
- Switching frequency: 218894CX: 325kHz; 218907CX: 400kHz
- Industry standard footprint
- Remote ON/OFF
- Output trim
- Working temperature: -40 to +100°C



- Two-year warranty
- Very high MTBF
- No minimum load
- UL/CUL/TUV approved
- Ripple & noise: 60 mV p-p

The EXQ60 delivers very high output current at low voltages, and excellent useable power density for today's high-end applications. The models offered feature an input voltage range of 33 to 75VDC and are available in output voltages of 2.5V/3.3V and 3.3V/5V. The output voltage on each model is adjustable from 90% to 110% of the nominal value. Typical efficiencies for the models are 90% for the 2.5V/3.3V and 91% for the 3.3V/5V versions. Over-current and over-voltage protection features are included as standard. With full international safety approval including EN60950 and UL1950, the EXQ60 reduces compliance cost and time to market.

SALE

| Jameco Part No. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Weight (lbs.) | Price | | | |
|-----------------|-----------------------------|-------------|----------------------|-------|---------------------|------|----------------|----------------|---------------|----------|----------|----------|---------|
| | | | Voltage@Current | Power | | | | | | 1 | 10 | 25 | 100 |
| 218894CX | EXQ60-48D3V3-2V5-R | 33-75V | +2.5V@16A; +3.3V@12A | 40.0W | 2.3x1.5x0.5 | 7 | — | — | 0.10 | \$127.79 | \$118.25 | \$108.69 | \$99.15 |
| 218907CX | EXQ60-48D05-3V3-R | 33-75V | +3.3V@15A; +5V@12A | 60.0W | 2.3x1.5x0.5 | 7 | — | — | 0.10 | 127.79 | 118.25 | 108.69 | 99.15 |

50, 100 & 150-Watt Enclosed

SD50, SD100 & SD150 Series: Single Output

- Isolation voltage: 1500VDC
- Protection: short-circuit, overload & over-voltage
- Very high MTBF
- 2:1 wide input range
- Working temperature: -10° to +60°C (see www.Jameco.com)
- Ripple & noise: 212548CX/216602CX/212476CX/212484CX: 100 mV p-p; 212530CX/212505CX/216565CX/212468CX/217269CX: 120 mV p-p; 212513CX/212492CX: 150 mV p-p
- Input filter: Pi-network
- Shielded metal case
- 105°C output capacitor
- Mounting hardware: use P/Ns 222156CX & 222172CX; see www.Jameco.com for specifications
- 100% burn-in test
- One-year warranty
- Free-air convection cooling
- Industry standard package



SALE

The Mean Well SD families of enclosed DC-to-DC converters are known for their reliability and low cost. The physical ruggedness is complemented by the many electrical protections; short-circuit, overload with auto-recovery, and over-voltage to 165% of rated output. These converters offer wide 2:1 input voltage ranges of 9-18VDC and 36-72VDC. The input-to-output isolation is 500VDC and the isolation resistance is 100MΩ at 500VDC. The line and load regulation are both ±0.5% maximum. The Mean Well SD series complies with EMC standards EN55022 class B and EN61000-4-2/3/4/6/8.

| Jameco Part No. | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Line Reg. (±%) | Load Reg. (±%) | Weight (lbs.) | Price | | | |
|-----------------|-----------------------------|-------------|-----------------|--------|---------------------|------|----------------|----------------|---------------|---------|---------|---------|---------|
| | | | Voltage@Current | Power | | | | | | 1 | 10 | 25 | 100 |
| 212548CX | SD-50A-5 | 9-18V | +5V@10A | 50.0W | see www.Jameco.com | 5 | 0.5 | 0.5 | 1.10 | \$35.79 | \$32.53 | \$29.58 | \$26.89 |
| 212530CX | SD-50B-12 | 19-36V | +12V@4.2A | 50.4W | see www.Jameco.com | 5 | 0.3 | 0.3 | 1.10 | 51.95 | 39.99 | 36.99 | 32.99 |
| 212513CX | SD-50B-24 | 19-36V | +24V@2.1A | 50.4W | see www.Jameco.com | 5 | 0.2 | 0.2 | 1.10 | 35.79 | 32.53 | 29.58 | 26.89 |
| 216602CX | SD-50C-5 | 36-72V | +5V@10A | 50.0W | see www.Jameco.com | 5 | 0.5 | 0.5 | 1.10 | 37.34 | 33.95 | 30.86 | 28.06 |
| 212505CX | SD-50C-12 | 36-72V | +12V@4.2A | 50.4W | see www.Jameco.com | 5 | 0.3 | 0.3 | 1.10 | 51.95 | 39.99 | 36.99 | 32.99 |
| 212492CX | SD-50C-24 | 36-72V | +24V@2.1A | 50.4W | see www.Jameco.com | 5 | 0.2 | 0.2 | 1.10 | 47.95 | 43.19 | 38.85 | 34.99 |
| 212476CX | SD-100B-5 | 19-36V | +5V@20A | 100.0W | see www.Jameco.com | 7 | 0.5 | 0.5 | 1.30 | 50.55 | 45.95 | 41.79 | 37.99 |
| 216565CX | SD-100B-12 | 19-36V | +12V@8.5A | 102.0W | see www.Jameco.com | 7 | 0.3 | 0.3 | 1.30 | 72.95 | 53.99 | 50.99 | 44.99 |
| 212484CX | SD-100C-5 | 36-72V | +5V@20A | 100.0W | see www.Jameco.com | 7 | 0.5 | 0.5 | 1.30 | 52.45 | 47.69 | 43.35 | 39.45 |
| 212468CX | SD-100C-12 | 36-72V | +12V@8.5A | 102.0W | see www.Jameco.com | 7 | 0.3 | 0.3 | 1.30 | 63.95 | 53.99 | 50.99 | 44.99 |
| 217269CX | SD-150B-12 | 19-36V | +12V@12.5A | 150.0W | see www.Jameco.com | 7 | 0.5 | 0.5 | 1.90 | 82.95 | 70.99 | 65.99 | 57.99 |

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SALE

| Jameco Part No. | Manufacturer | Manufacturer Product Number | Input Range | Output | | Size Inches (LxWxH) | Pins | Ripple & Noise (mV p-p) | Line Reg. (±%) | Load Reg. (±%) | Temp. °C | Price | | | |
|-----------------|--------------|-----------------------------|-------------|--------------------|--------|---------------------|------|-------------------------|----------------|----------------|------------|---------|---------|---------|---------|
| | | | | Voltage@Current | Power | | | | | | | 1 | 10 | 25 | 100 |
| 206113CX | Datel | BCP-5/15-3.3/15-D48 | 36-75V | +3.3V@15A; +5V@15A | 75.0W | 2.3x2.4x0.5 | 10 | 50 | 0.2 | 0.5 | -40 to +45 | \$13.42 | \$12.20 | \$11.09 | \$10.09 |
| 206041CX | Power Cube | PD150-048-05-PC | 36-76V | +5V@30A | 150.0W | 2.3x2.4x0.5 | 9 | 50 | 0.05 | 0.05 | — | 15.85 | 14.41 | 13.10 | 11.90 |
| 206033CX | Power Cube | PD300-300-15-PC | 200-300V | +15V@20A | 300.0W | 4.6x2.4x0.5 | 11 | 150 | 0.05 | 0.05 | — | 23.14 | 21.04 | 19.12 | 17.38 |
| 206121CX | Lambda | PH300F-280-3 | 200-400V | +3V@60A | 180.0W | 5.8x3.4x0.5 | 12 | 100 | 0.4 | 0.8 | -20 to +85 | 17.31 | 15.74 | 14.31 | 13.00 |



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Polarity 1 $\oplus \ominus$ (center negative)






Male

Polarity 2 $\ominus \oplus$ (center positive)

Quantity

SAVE

| Power | Part Number | Mfr.  | Mfr. Cross Ref. No.  | Output | | Input VAC@Hz | Output Connector ID x OD/Polarity F = female; M = male | Pwr. Ind. | Color | Size (L" x W" x H") | Cords* (DC/AC) | Wt. (lbs.) | Agency Approvals |  Pricing | | | |
|---------------------------------------|-------------|--|---|--------------------------|--------------------------|---------------|---|-----------|-----------------|---------------------|----------------|------------|------------------|---|---------|---------|---------|
| | | | | Pwr (W) | Volts (VDC)/ Current (A) | | | | | | | | | 1 | 10 | 50 | 100 |
| | | | | | | | | | | | | | | | | | |
| 2-Wire AC Input – Regulated Switching | | | | | | | | | | | | | | | | | |
| 5-24 Watt | 221823CX | Mean Well | P15A-0P2JU | 7 | +3.3/2.2 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 3.6 x 1.6 x 1.5 | 6'/6' | 0.5 | UL/CUL/TUV/CE | \$16.49 | \$14.84 | \$13.36 | \$12.02 |
| | 221591CX | Mean Well | P30B-0P2JU | 12 | +3.3/3.6 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.8 | UL/CUL/TUV/CE | \$21.95 | 18.95 | 17.06 | 15.35 |
| | 237059CX | Cisco | ADP-12GB | 12.5 | +5/2.5 | 100-240@50-60 | 2.5mm x 5.5mm F 2 | No | Black | 3.5 x 2.3 x 1.2 | 6'/3 | 0.6 | UL/CUL/TUV/CE | 14.95 | 13.49 | 10.79 | 8.09 |
| | 249050CX | Phihong | PSA15W-050 | 12.5 | +5/2.5 | 100-240@50-60 | 2.5mm x 5.5mm F 2 | No | Black | 4.3 x 2.6 x 1.0 | 6'/3 | 0.4 | UL/CSA/TUV/CE | 19.49 | 17.75 | 16.39 | 14.55 |
| | 211300CX | Horizon | SSL20-7605 | 20 | +5/4.0 | 100-240@50-60 | 2.5mm x 5.5mm F 2 | No | Black | 4.2 x 2.3 x 1.0 | 6'/3 | 1.5 | UL/CSA/VDE/CE | 24.95 | 19.99 | 14.99 | 10.49 |
| | 221604CX | Mean Well | P30B-1P2JU | 20 | +5/4.0 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.8 | UL/CUL/TUV/CE | \$25.95 | 22.95 | 20.66 | 18.59 |
| | 195805CX | Horizon | DCR920F12 | 18 | +9/2.0 | 100-240@50-60 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.2 x 2.6 x 1.4 | 6'/6' | 0.9 | UL/CUL/TUV/CE | 26.95 | 24.29 | 21.85 | 19.65 |
| | 195768CX | Horizon | DCR920F52 | 18 | +9/2.0 | 100-240@50-60 | 2.5mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.9 | UL/CUL/TUV/CE | 22.95 | 20.69 | 18.59 | 16.75 |
| | 249041CX | Phihong | PSA15W-120 | 15 | +12/1.25 | 100-240@50-60 | 2.1mm x 5.5mm F 2 | No | Black | 4.3 x 2.6 x 1.0 | 6'/3 | 0.3 | UL/CSA/TUV/CE | 19.49 | 17.75 | 16.39 | 14.55 |
| | 229586CX | Mean Well | G15B-3P2JR15 | 15 | +12/1.3 | 100-240@50-60 | 2.1mm x 5.5mm F 2 | No | Black | 3.9 x 2.3 x 1.6 | 6'/3 | 0.5 | UL/CSA/TUV/CE | 19.49 | 17.69 | 16.39 | 14.51 |
| | 221840CX | Mean Well | P15B-4P2JR | 15 | +15/1.0 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 3.6 x 1.6 x 1.5 | 6'/6' | 0.5 | UL/CUL/TUV/CE | 13.65 | 12.95 | 12.35 | 11.69 |
| | 211174CX | Horizon | SC102TA1503 | 18 | +15/1.2 | 100-240@47-63 | 2.5mm x 5.5mm F 2 | No | Black | 4.0 x 1.9 x 1.4 | 6'/3 | 0.5 | UL/CUL/TUV/CE | 19.95 | 17.95 | 14.35 | 10.79 |
| | 221858CX | Mean Well | P15B-6PJU | 15 | +24/0.6 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 3.6 x 1.6 x 1.5 | 6'/6' | 0.5 | UL/CUL/TUV/CE | 19.49 | 17.59 | 15.79 | 14.19 |
| 196138CX | DVE | DSA-0283A | 23 | +5/1, +12/1.49 -5/4.3 | 100-240@47-63 | 5-pin DIN M | No | Black | 4.9 x 2.7 x 1.5 | 6'/3 | 0.8 | UL/CSA/TUV | \$17.95 | 16.95 | 15.25 | 12.19 | |
| 25-60 Watt | 220311CX | Horizon | SL120300 | 36 | +12/3.0 | 100-240@50-60 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.0 x 1.2 | 6'/3 | 0.6 | UL/CUL/TUV/CE | 29.95 | 26.99 | 24.29 | 21.85 |
| | 220441CX | Horizon | SL120300RT | 36 | +12/3.0 | 100-240@50-60 | 2.5mm x 5.5mm F 2† | Yes | Black | 4.3 x 2.0 x 1.2 | 6'/3 | 0.6 | UL/CUL/TUV/CE | 29.95 | 26.99 | 24.29 | 21.85 |
| | 224055CX | Horizon | SL120300-4.5 | 36 | +12/3.0 | 100-240@50-60 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.0 x 1.2 | 4.5'/3 | 0.6 | UL/CUL/TUV/CE | 29.95 | 26.99 | 24.29 | 21.85 |
| | 230498CX | Phihong | PSA60W-120 | 50 | +12/4.2 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 4.0 x 2.5 x 1.3 | 6'/3 | 0.5 | UL/CUL/TUV/CE | 36.49 | 32.85 | 29.55 | 29.55 |
| | 230501CX | Phihong | PSA60W-180 | 60 | +18/3.3 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 4.0 x 2.5 x 1.3 | 6'/3 | 0.5 | UL/CUL/TUV/CE | 36.49 | 32.85 | 29.55 | 29.55 |
| | 221612CX | Mean Well | P30B-6P2JU | 27 | +24/1.1 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.8 | UL/CUL/TUV/CE | 25.95 | 23.35 | 20.99 | 18.99 |
| | 229841CX | Phihong | PSA60W-240 | 60 | +24/2.5 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 4.0 x 2.5 x 1.3 | 6'/3 | 0.5 | UL/CUL/TUV/CE | 36.49 | 32.85 | 29.55 | 29.55 |
| | 205911CX | Delta | ADP-25HB | 25 | +30/0.83 | 100-125@50-60 | 2.1mm x 5.5mm F 2 | No | Black | 3.5 x 2.4 x 1.2 | 6'/7' | 1.1 | UL/CUL | 17.49 | 15.75 | 12.59 | 9.45 |
| 3-Wire AC Input – Regulated Switching | | | | | | | | | | | | | | | | | |
| 5-20 Watt | 221671CX | Mean Well | P30A-0P2JU | 12 | +3.3/3.6 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.8 | UL/CSA/TUV/CE | \$26.95 | \$24.29 | \$21.85 | \$19.65 |
| | 221567CX | Mean Well | P40A-0P2JU | 15 | +3.3/4.5 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.8 | UL/CUL/TUV/CE | 29.95 | 26.99 | 24.29 | 21.85 |
| | 196218CX | GlobeTek | GT210891005T3 | 10 | +5/2.0 | 120-240@50-60 | 2.1mm x 5.5mm F 2 | No | Black | 3.4 x 1.9 x 1.3 | 6'/2 | 0.4 | UL/CUL/TUV/CE | 19.95 | 17.95 | 16.15 | 14.55 |
| | 224282CX | Mean Well | P15A-11P2JU | 12 | +5/2.4 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 3.6 x 1.6 x 1.5 | 6'/6' | 0.6 | UL/CSA | 19.95 | 17.95 | 16.19 | 14.59 |
| | 202796CX | Mean Well | MA15-2.5U | 15 | +5/2.5 | 100-240@47-63 | 2.5mm x 5.5mm F 2 | No | Black | 3.3 x 2.0 x 1.3 | 4'/6' | 0.4 | UL/CSA/TUV | 19.65 | 17.85 | 15.95 | 13.95 |
| | 221786CX | Mean Well | U24S102-P2JU | 15 | +5/3.0 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.2 x 2.6 x 1.2 | 6'/6' | 0.8 | UL/CUL/TUV/CE | 23.95 | 21.55 | 19.39 | 17.45 |
| | 206236CX | Netgear | A15D3-05MP | 15 | +5/3.0 | 100-240@50-60 | 2.5mm x 5.5mm F 2 | No | Black | 3.8 x 2.1 x 1.4 | 5'/2 | 0.4 | UL/CSA/TUV | 24.95 | 22.49 | 20.25 | 16.85 |
| | 228996CX | Phihong | PSA31U-050 | 20 | +5/4.0 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 4.5 x 2.4 x 1.4 | 6'/2 | 0.5 | UL/CUL/TUV/CE | 26.95 | 24.25 | 21.85 | 19.65 |
| | 155205CX | Mean Well | KA52A | 20 | +5/4.0 | 100-240@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 4.1 x 2.6 x 1.6 | 6'/6' | 1.2 | UL/CSA/TUV | 29.95 | 26.96 | 23.19 | 19.39 |
| | 213583CX | Mean Well | P30A-1P2JU | 20 | +5/4.0 | 100-240@50-60 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.7 | UL/CUL/TUV/CE | 26.95 | 24.25 | 21.85 | 19.65 |
| | 228988CX | Phihong | PSA18U-120 | 18 | +12/1.5 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 3.9 x 2.2 x 1.2 | 6'/2 | 0.5 | UL/CUL/TUV/CE | 22.95 | 20.65 | 18.59 | 16.75 |
| | 216549CX | Mean Well | KWM020-1812F | 18 | +12/1.5 | 100-240@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 4.0 x 1.9 x 1.5 | 6'/6' | 0.4 | UL/CUL/TUV/CE | 22.95 | 20.65 | 18.59 | 16.75 |
| | 216531CX | Mean Well | KWM12F-P2MU | 18 | +12/1.5 | 100-240@47-63 | 2.5mm x 5.5mm F 2 | No | Black | 4.0 x 1.9 x 1.5 | 6'/6' | 0.4 | UL/CUL/TUV/CE | 26.95 | 24.25 | 21.85 | 19.65 |
| | 243002CX | Mean Well | G15A-6P2JU | 15 | +24/0.6 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 3.9 x 2.3 x 1.3 | 6'/6' | 0.4 | UL/CUL/TUV/CE | 19.95 | 17.95 | 16.15 | 14.55 |
| 159353CX | Mean Well | KA60AU | 17 | +5/1, ±12/0.5 | 100-240@50-60 | 5-pin DIN M | Yes | Black | 4.1 x 2.6 x 1.5 | 6'/5' | 1.0 | UL/CSA/TUV | 36.95 | 33.29 | 29.95 | 26.95 | |
| 21-29 Watt | 213575CX | Mean Well | P40A-1P2JU | 25 | +5/5.0 | 100-240@50-60 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.7 | UL/CUL/TUV/CE | 29.95 | 26.99 | 24.29 | 21.85 |
| | 211019CX | Mean Well | KA52B | 25 | +9/2.78 | 100-240@47-63 | 2.5mm x 5.5mm F 2 | No | Black | 4.2 x 2.6 x 1.5 | 6'/2 | 0.9 | UL/CSA/TUV/CE | 29.95 | 26.99 | 24.29 | 21.85 |
| | 211027CX | Mean Well | KA52BMOD | 25 | +9/2.78 | 100-240@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 4.2 x 2.6 x 1.5 | 6'/2 | 0.9 | UL/CSA/TUV/CE | 17.85 | 16.23 | 14.75 | 13.41 |
| | 243011CX | Mean Well | P30A-41P2JU | 27 | +15/1.8 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.2 x 2.6 x 1.4 | 6'/2 | 0.8 | UL/CUL/TUV/CE | 25.95 | 23.39 | 21.05 | 18.95 |
| | 206455CX | Ault | SC100 | 25 | +16/1.56 | 100-240@50-60 | 2.5mm x 5.5mm F 2 | No | Black | 4.2 x 2.6 x 1.5 | 6'/6' | 1.2 | UL/CUL/TUV/CE | 17.95 | 14.95 | 10.95 | 9.15 |
| | 221680CX | Mean Well | P30A-6P2JU | 27 | +24/1.1 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.8 | UL/CSA/TUV/CE | 26.95 | 24.29 | 21.85 | 19.65 |
| | 215087CX | Mean Well | P30A-8P2J | 27 | +48/0.56 | 100-240@50-60 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.7 | UL/CSA/TUV/CE | 21.89 | 19.89 | 18.09 | 16.59 |
| | 215079CX | Mean Well | P30A-8P2MU | 27 | +48/0.56 | 100-240@50-60 | 2.5mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.7 | UL/CSA/TUV/CE | 22.00 | 20.00 | 18.18 | 16.53 |
| | 196269CX | Everglow | PSU25A13 | 25 | +5/2.5, +12/1.0 | 100-240@47-63 | 4-pin mini DIN M | No | Black | 4.2 x 2.6 x 1.4 | 6'/4' | 1.2 | UL/CUL/TUV/CE | 27.95 | 25.19 | 22.65 | 20.39 |
| | 221751CX | Mean Well | P25A13-1RBU | 25 | +5/2.5, +12/1.0 | 90-264@47-63 | 5-pin DIN M | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.8 | UL/CSA/TUV/CE | 27.95 | 25.19 | 22.69 | 20.39 |

* See accessory table-top power cord chart on page 146 when AC cord needed; refer to 1, 2 or 3 in Cord (DC/AC) column above for correct power cord

▲ Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, Jameco and GlobTek

† Right angle

3-Wire Table-Top Power Supplies Continued on Page 145

AC-to-DC Regulated Switching Table-Top Power Supplies

We will change any power plug (pg 83) on any table-top power supply (100 pc. minimum).

See page 155 for
International
Power Cords

Quantity
SAVE

New Lower
Prices



Polarity 1 \oplus \ominus (center negative)



Female

Polarity 2 \ominus \oplus (center positive)



DIN M

SALE

| Power | Part Number | Mfr. ▲ | Mfr. Cross Ref. No. ▲ | Output | | Input VAC@Hz | Output Connector ID x OD/Polarity F = female; M = male | Pwr. Ind. | Color | Size (L" x W" x H") | Cords* (DC/AC) | Wt. (lbs.) | Agency Approvals | Pricing | | | |
|---|-------------|--------------|-----------------------|----------|--------------------------|---------------|--|-------------------|-------|---------------------|-----------------|------------|------------------|---------------|--------|--------|--------|
| | | | | Pwr (W) | Volts (VDC)/ Current (A) | | | | | | | | | 1 | 10 | 50 | 100 |
| | | | | | | | | | | | | | | | | | |
| 3-Wire AC Input – Regulated Switching (Continued) | | | | | | | | | | | | | | | | | |
| 21-29 Watt (con't) | 189561CX | Phihong | PSM-3012G | 26 | +5/4, +12/0.5 | 100-240@50-60 | 5-pin mini DIN M | Yes | Beige | 5.8 x 2.9 x 1.6 | 6'/1 | 1.3 | UL/CSA | \$6.25 | \$5.62 | \$4.50 | \$3.38 |
| | 190650CX | Ault | SW300 | 25 | +5/4.0, +12/1.0 | 100-250@50-60 | 5-pin DIN M | No | Black | 5.9 x 3.4 x 2.1 | 6'/2 | 1.5 | UL/CSA/TUV | 8.83 | 7.95 | 6.35 | 4.79 |
| | 221760CX | Mean Well | P25A14-R1BU | 25 | +5/2.5, +15/0.8 | 90-264@47-63 | 5-pin DIN M | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.8 | UL/CUL/TUV/CE | 27.95 | 24.15 | 21.73 | 19.56 |
| | 221778CX | Mean Well | P25A16-R1BU | 25 | +5/2.5, +24/0.5 | 90-264@47-63 | 5-pin DIN M | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.8 | UL/CUL/TUV/CE | 27.95 | 24.15 | 21.73 | 19.56 |
| | 190959CX | Mean Well | P25A13D-R1U | 26 | +5/2.5, +12/0.8 -12/0.3 | 100-240@47-63 | 5-pin DIN M | Yes | Black | 4.1 x 2.6 x 1.4 | 6'/6' | 1.1 | CUL/TUV/CE | 32.95 | 29.69 | 26.69 | 24.05 |
| | 221719CX | Mean Well | P25A14E-R1BU | 25 | +5/2.5, +15/0.3 -15/0.3 | 90-264@47-63 | 5-pin DIN M | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.8 | UL/CUL/TUV/CE | 32.95 | 29.69 | 26.69 | 24.05 |
| 30-40 Watt | 221516CX | Mean Well | U45S102-P2JU | 40 | +5/8.0 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 5.7 x 3.0 x 1.7 | 4'/6' | 1.4 | UL/CUL/TUV/CE | 37.95 | 34.19 | 30.79 | 27.69 |
| | 206527CX | Mean Well | P40A-1-1P25U | 30 | +7.5/4.0 | 100-240@50-60 | 2.1mm x 5.5mm F 2 | No | Black | 4.3 x 2.7 x 1.5 | 6'/6' | 1.5 | UL/CUL/TUV/CE | 29.95 | 26.95 | 23.95 | 21.95 |
| | 229008CX | Phihong | PSA31U-120 | 30 | +12/2.5 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 4.5 x 2.4 x 1.4 | 6'/2 | 0.5 | UL/CUL/TUV/CE | 26.95 | 24.25 | 21.85 | 19.65 |
| | 155213CX | Mean Well | P40A-3P2JU | 40 | +12/3.3 | 100-240@50-60 | 2.1mm x 5.5mm F 2 | Yes | Black | 5.5 x 2.3 x 1.5 | 6'/6' | 0.7 | UL/CUL/TUV | 35.95 | 32.36 | 29.12 | 26.21 |
| | 229016CX | Phihong | PSA31U-150 | 30 | +15/2.0 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 4.5 x 2.4 x 1.4 | 6'/2 | 0.5 | UL/CUL/TUV/CE | 26.95 | 24.25 | 21.85 | 19.65 |
| | 206471CX | Mean Well | P40A-4AR01U | 30 | +15/2.0 | 100-240@50-60 | 2.5mm x 5.5mm F 2 | No | Black | 5.6 x 2.9 x 1.6 | 6'/6' | 1.2 | UL/CUL/TUV/CE | 26.95 | 24.29 | 21.85 | 19.65 |
| | 221575CX | Mean Well | P40A-4P2JU | 40 | +15/2.7 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.6 x 1.4 | 6'/6' | 0.8 | UL/CUL/TUV/CE | 33.95 | 30.56 | 27.50 | 24.75 |
| | 230480CX | Phihong | PSA31U-180 | 30 | +18/1.6 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 3.9 x 2.2 x 1.2 | 6'/2 | 0.5 | UL/CUL/TUV/CE | 26.95 | 24.25 | 21.85 | 21.85 |
| | 229024CX | Phihong | PSA31U-240 | 30 | +24/1.25 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 4.5 x 2.4 x 1.4 | 6'/2 | 0.5 | UL/CUL/TUV/CE | 26.95 | 24.25 | 21.85 | 19.65 |
| | 181884CX | Mean Well | P40A6P2JU | 40 | +24/1.66 | 100-240@50-60 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.1 x 2.6 x 1.4 | 6'/6' | 0.7 | UL/TUV/CE | 35.95 | 32.36 | 29.12 | 26.21 |
| | 229032CX | Phihong | PSA31U-480 | 30 | +48/0.63 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | No | Black | 4.5 x 2.4 x 1.6 | 6'/2 | 0.5 | UL/CUL/TUV/CE | 26.95 | 24.25 | 21.85 | 19.65 |
| | 221583CX | Mean Well | P40A-8P2JU | 40 | +48/0.8 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.2 x 2.6 x 1.4 | 6'/6' | 0.8 | UL/CUL/TUV/CE | 33.95 | 30.56 | 27.50 | 24.75 |
| 41-49 Watt | 211191CX | Westinghouse | FSA30P31 | 30 | +5/3, ±12/0.8 | 85-264@47-63 | 5-pin DIN M | No | Black | 5.8 x 3.0 x 1.7 | 4'/2 | 1.1 | UL/CSA/TUV | 25.95 | 23.35 | 21.05 | 18.95 |
| | 203043CX | Ault | SC200 | 32 | +5/4, +12/1 | 100-240@50-60 | 5-pin DIN M | No | Black | 5.0 x 3.0 x 1.6 | 6'/2 | 1.3 | UL/CSA/CE | 19.95 | 17.95 | 14.55 | 10.79 |
| | 221524CX | Mean Well | U45S105-P2JU | 45 | +12/3.8 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 5.7 x 3.0 x 1.7 | 6'/6' | 1.3 | UL/CSA/TUV/CE | 37.95 | 34.15 | 30.75 | 27.65 |
| | 221532CX | Mean Well | U45S106-P2JU | 45 | +15/3.0 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 5.7 x 3.0 x 1.7 | 6'/6' | 1.3 | UL/CSA/TUV/CE | 37.95 | 34.15 | 30.75 | 27.65 |
| | 221508CX | Mean Well | L60A24-P1JU | 48 | +24/2.0 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 4.3 x 2.4 x 1.2 | 6'/6' | 0.8 | UL/CUL/TUV/CE | 32.95 | 29.66 | 26.69 | 24.02 |
| | 221559CX | Mean Well | U45S111-P2JU | 48 | +48/1.0 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 5.7 x 3.0 x 1.7 | 6'/6' | 1.3 | UL/CUL/TUV/CE | 37.95 | 34.19 | 30.79 | 27.69 |
| | 221727CX | Mean Well | U45D201-R1BU | 42 | +5/3.5, +12/2.0 | 90-264@47-63 | 5-pin DIN M | Yes | Black | 5.7 x 3.0 x 1.7 | 4'/6' | 1.3 | UL/CSA/TUV/CE | 38.95 | 34.95 | 31.55 | 28.35 |
| | 215132CX | Mean Well | U45T302-R1BU | 42 | +5/5, +12/1, -12/0.3 | 90-264@47-63 | 5-pin DIN M | Yes | Black | 5.8 x 3.1 x 1.8 | 4'/6' | 1.4 | UL/CUL/TUV/CE | 49.95 | 44.99 | 40.49 | 36.45 |
| | 211107CX | Fortron | FSA55P31 | 45 | +5/5, +12/3 -12/0.5 | 85-264@50-60 | 5-pin DIN M | Yes | Black | 7.0 x 3.8 x 2.2 | 4'/2 | 1.6 | UL/CSA/TUV | 49.95 | 39.99 | 29.99 | 20.99 |
| | 237366CX | Mean Well | P50A14E-R1BU | 42 | +5/3.5, +15/1.2 -15/0.3 | 100-240@47-63 | 5-pin DIN M | Yes | Black | 5.8 x 3.0 x 1.7 | 4'/6' | 1.2 | UL/CUL/TUV/CE | 36.95 | 33.25 | 29.95 | 26.95 |
| | 50-59 W | 221487CX | Mean Well | SPU50-1U | 50 | +5/10 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 5.7 x 3.0 x 1.7 | 6'/6' | 2.0 | UL/CUL/TUV/CE | 36.95 | 33.95 | 31.95 | 29.49 |
| 221541CX | | Mean Well | U45S108-P2JU | 50 | +24/2.1 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 5.7 x 3.0 x 1.7 | 6'/6' | 1.3 | UL/CSA/TUV/CE | 37.95 | 34.15 | 30.75 | 27.65 |
| 221701CX | | Mean Well | P50A13D-R1BU | 50 | +5/4.0, +12/2.0 -12/0.5 | 90-264@47-63 | 5-pin DIN M | Yes | Black | 5.7 x 3.0 x 1.7 | 4'/6' | 1.5 | UL/CUL/TUV/CE | 48.95 | 44.09 | 39.69 | 35.69 |
| 60-80 Watt | 155230CX | Mean Well | SPU50-3U | 60 | +12/5.0 | 100-240@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 5.6 x 2.9 x 1.5 | 6'/6' | 1.3 | UL/CSA/TUV | 49.95 | 44.95 | 39.95 | 35.95 |
| | 182959CX | Elpac | W7212 | 72 | +12/6.0 | 95-250@47-63 | 5-pin DIN F | | Black | 6.2 x 3.8 x 2.6 | 6'/6' | 2.5 | UL/CSA/CE | 54.95 | 49.49 | 39.59 | 29.69 |
| | 221428CX | Mean Well | U65S105-P2JU | 80 | +12/6.7 | 95-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 6.6 x 3.1 x 1.8 | 6'/6' | 2.0 | UL/CUL/TUV/CE | 64.95 | 55.29 | 49.95 | 47.49 |
| | 221479CX | Mean Well | SPU50-4U | 60 | +15/4.0 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 5.7 x 3.0 x 1.7 | 6'/6' | 2.0 | UL/CUL/TUV/CE | 38.49 | 34.65 | 31.19 | 28.09 |
| | 221436CX | Mean Well | U65S106-P2JU | 80 | +15/5.33 | 95-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 6.6 x 3.1 x 1.8 | 6'/6' | 2.0 | UL/CUL/TUV/CE | 64.95 | 55.29 | 49.95 | 47.49 |
| | 243045CX | Mean Well | P66A-5P2JU | 66 | +18/3.66 | 90-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 5.8 x 3.0 x 1.7 | 6'/6' | 1.2 | UL/CUL/TUV/CE | 38.49 | 34.91 | 32.21 | 29.55 |
| | 221444CX | Mean Well | U65S107-P2JU | 80 | +18/4.4 | 95-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 6.6 x 3.1 x 1.8 | 6'/6' | 2.0 | UL/CUL/TUV/CE | 64.95 | 55.29 | 49.95 | 47.49 |
| | 161605CX | Mean Well | SPU50-6U | 60 | +24/2.5 | 100-240@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 5.6 x 2.9 x 1.6 | 1'9/16" | 1.3 | UL/CSA/TUV | 44.95 | 39.95 | 35.95 | 32.95 |
| | 221452CX | Mean Well | U65S108-P2JU | 80 | +24/3.3 | 95-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 6.6 x 3.1 x 1.8 | 6'/6' | 2.0 | UL/CUL/TUV/CE | 64.95 | 55.29 | 49.95 | 47.49 |
| | 172064CX | Mean Well | SPU50-9U | 60 | +48/1.25 | 100-240@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 5.6 x 2.9 x 1.7 | 6'/6' | 1.3 | UL/CSA/TUV | 44.95 | 40.49 | 36.45 | 32.79 |
| | 221461CX | Mean Well | U65S111-P2JU | 80 | +48/1.7 | 95-264@47-63 | 2.1mm x 5.5mm F 2 | Yes | Black | 6.6 x 3.1 x 1.8 | 6'/6' | 2.0 | UL/CUL/TUV/CE | 64.95 | 55.29 | 49.95 | 47.49 |

* See accessory table-top power cord chart on page 146 when AC cord needed; refer to 1, 2 or 3 in Cord (DC/AC) column above for correct power cord
▲ Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, Jameco and GlobTek

30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, we'll take it back!

Details on page 241.

AC-to-DC Regulated Linear Table-Top Power Supplies

Color Code Legend
New Sale Qty Save Closeout

See page 155 for
International
Power Cords

We will change any power plug (pg 83) on any table-top power supply (100 pc. minimum).



DIN M



Molex



211060CX



116089CX



174852CX



240127CX



243088CX



Quantity
SAVE

Polarity 1 \oplus \ominus \ominus (center negative)



Female



Male

Polarity 2 \ominus \oplus \oplus (center positive)



Stripped

| Power | Part Number | Mfr. ▲ | Mfr. Cross Ref. No. ▲ | Output | | Input VAC@Hz | Output Connector ID x OD/Polarity F = female; M = male | Pwr. Ind. | Color | Size (L" x W" x H") | Cords* (DC/AC) | Wt. (lbs.) | Agency Approvals | Pricing | | | |
|------------------------------------|-------------|--------------|-----------------------|---------|--------------------------------------|--------------|---|-----------|-------|---------------------|-------------------|------------|------------------|---------|---------|--------|--------|
| | | | | Pwr (W) | Volts (VDC)/ Current (A) | | | | | | | | | 1 | 10 | 50 | 100 |
| 2-Wire AC Input – Regulated Linear | | | | | | | | | | | | | | | | | |
| 5-25 Watts | 211060CX | Pacific Data | DV-51AAT | 5 | +5/1 | 120@60 | 2.1mm x 5.5mm rt angle F 2 | No | Black | 3.4 x 2.7 x 2.2 | 6'6'6" | 1.7 | UL/CSA | \$11.95 | \$10.76 | \$8.60 | \$6.45 |
| | 116089CX | Atari | C070042 | 5 | +5/1 | 115@60 | 7-pin DIN M | No | Black | 3.4 x 2.7 x 2.3 | 6'6' | 1.6 | UL | 7.95 | 7.16 | 5.72 | 4.29 |
| | 174844CX | Jameco | DCR2410F12 | 24 | +24/1 | 120@60 | 2.1mm x 5.5mm F 2 | No | Black | 4.4 x 3.0 x 2.5 | 6'6" | 2.6 | — | 16.95 | 15.25 | 12.19 | 9.15 |
| | 174852CX | Jameco | DCR2410F52 | 24 | +24/1 | 120@60 | 2.5mm x 5.5mm F 2 | No | Black | 4.4 x 3.0 x 2.5 | 6'6" | 2.7 | — | 14.95 | 12.95 | 10.95 | 9.95 |
| | 240127CX | — | FW3698 | 24 | +24/1 | 120@60 | 2.5mm x 5.5mm F 2 | No | Black | 4.0 x 3.0 x 2.7 | 6'6"/7'2" | 2.5 | — | 14.79 | 13.29 | 11.99 | 9.95 |
| | 103173CX | Jameco | JE9100 | 9 | +5/0.6, ±12/0.25 | 120@50-60 | 5-pin DIN M | No | Black | 4.8 x 3.1 x 2.5 | 6'6" | 2.3 | UL/CSA | 20.95 | 18.89 | 16.99 | 14.95 |
| 3-Wire AC Input – Regulated Linear | | | | | | | | | | | | | | | | | |
| 5-20 Watts | 265295CX | — | T5121000/37 | 12.2 | +5/1, ±12/0.3 | 120@60 | 6-pin mini DIN M | No | Black | 4.5 x 3.0 x 2.5 | 6'6' | 2.6 | UL/CSA | \$9.69 | \$8.72 | \$6.99 | \$5.25 |
| | 154624CX | Motorola | 5712-305-4C3E† | 5.6 | +5/0.5, ±12/0.13 | 120@60 | 8-pin mini DIN M | No | Black | 2.9 x 2.6 x 1.9 | 6'1'2" | 1.2 | UL/CSA | 12.95 | 10.39 | 7.79 | 5.45 |
| | 243088CX | Regal | RJM-551228 | 17.4 | +5/0.9, +12/0.62 -5/0.2, -28/0.16 | 120@60 | 6-pin DIN M | No | Black | 5.9 x 3.6 x 2.6 | 6'6" | 3.4 | UL/CUL | 16.95 | 15.25 | 12.19 | 9.15 |

† Wall-Mount * See accessory table-top power cord chart below when AC cord needed; refer to 1, 2 or 3 in Cord (DC/AC) column above for correct power cord

▲ Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, Jameco, and GlobTek

AC-to-DC Unregulated Table-Top Power Supplies

Quantity
SAVE

| Power | Part Number | Mfr. ▲ | Mfr. Cross Ref. No. ▲ | Output | | Input VAC@Hz | Output Connector ID x OD/Polarity F = female; M = male | Pwr. Ind. | Color | Size (L" x W" x H") | Length Cords (DC/AC) | Wt. (lbs.) | Agency Approvals | Pricing | | | |
|-------|-------------|--------|-----------------------|-----------|--------------------------|--------------|---|-----------|-------|---------------------|----------------------|------------|------------------|---------|----|----|-----|
| | | | | Power (W) | Volts (VDC)/ Current (A) | | | | | | | | | 1 | 10 | 50 | 100 |
| | | | | | | | | | | | | | | | | | |

SAVE

| 2-Wire AC Input – Unregulated | | | | | | | | | | | | | | | | | |
|-------------------------------|----------|----------|------------|---------|---------------|------------------------|------------------------|-------|-----------------|-----------------|------|--------|--------|---------|--------|--------|---------------------|
| 10-30 Watts | 190051CX | APS | APS48EA114 | 10 | +7/1.5 | 120@60 | 2.5mm x 5.5mm female 2 | No | Black | 3.4 x 2.3 x 1.9 | 6'6' | 1.9 | UL/CUL | \$9.95 | \$8.99 | \$7.19 | \$5.39 |
| | 243109CX | Regal | JK-91001-N | 9 | +9/1.0 | 120@60 | Stripped & Tinned | No | Black | 3.3 x 2.2 x 1.9 | 6'6' | 1.2 | UL/CSA | 17.95 | 16.19 | 12.95 | 9.69 |
| | 203182CX | Brother | A71222D | 25 | +11.5/2.2 | 120@60 | 2.1mm x 5.5mm female 1 | No | Black | 4.1 x 2.8 x 2.2 | 6'6' | 2.0 | UL/CSA | 11.95 | 10.76 | 8.60 | 6.45 |
| | 136565CX | Jameco | DDC1210P | 12 | +12/1.0 | 120@60 | Stripped & Tinned | No | Black | 3.2 x 2.2 x 1.9 | 6'6' | 1.2 | — | 13.95 | 12.59 | 11.39 | 10.19 |
| | 140880CX | Jameco | DC1215ST | 18 | +12/1.5 | 120@60 | Stripped & Tinned | No | Black | 3.1 x 2.1 x 1.9 | 6'6' | 1.5 | UL | 12.95 | 11.66 | 10.49 | 9.44 |
| | 143714CX | — | DC1220F1 | 24 | +12/2.0 | 120@60 | 2.1mm x 5.5mm female 2 | No | Black | 3.8 x 2.8 x 2.3 | 6'6' | 2.2 | — | 14.95 | 13.49 | 12.19 | 10.99 |
| | 143722CX | Jameco | DC1220F5 | 24 | +12/2.0 | 120@60 | 2.5mm x 5.5mm female 2 | No | Black | 3.8 x 2.8 x 2.3 | 6'6' | 2.2 | — | 12.95 | 11.69 | 10.55 | 9.49 |
| | 143731CX | — | DC1220M3 | 24 | +12/2.0 | 120@60 | 3.5mm M 2 | No | Black | 3.8 x 2.8 x 2.3 | 6'6' | 1.9 | — | 12.95 | 11.49 | 9.39 | 6.99 |
| | 220919CX | Jameco | EFU135170 | 23 | +13.5/1.7 | 120@60 | 2.1mm x 5.5mm F 1 | No | Black | 3.4 x 2.7 x 2.1 | 6'6' | 1.8 | UL/CUL | 11.54 | 10.49 | 9.54 | 8.67 |
| | 139096CX | Jameco | DC2412F1 | 29 | +24/1.2 | 120@60 | 2.1mm x 5.5mm female 2 | No | Black | 4.4 x 3.1 x 2.6 | 6'6' | 2.5 | — | 14.95 | 13.49 | 12.15 | 10.95 |
| 173665CX | Skyнет | DND-3005 | 15 | +30/0.5 | 120-127@60 | 2.5mm x 5.5mm F 2 | No | Black | 3.0 x 2.5 x 2.2 | 5'9"/3'2" | 1.4 | UL/CUL | 13.29 | 11.99 | 10.75 | 8.95 | |
| 205920CX | Skyнет | DND-3012 | 30 | +30/1.0 | 120-127@50-60 | 2.5mm x 5.5mm female 2 | No | Black | 4.0 x 2.9 x 2.5 | 6'6' | 1.7 | UL/CUL | 8.95 | 8.06 | 6.44 | 4.83 | |
| 3-Wire AC Input – Unregulated | | | | | | | | | | | | | | | | | |
| 15-25 | 157956CX | Everglow | EFU120150 | 18 | +12/1.5 | 120@60 | 2.5mm x 5.5mm female 2 | No | Black | 3.4 x 2.7 x 2.2 | 6'6' | 2.0 | UL | \$10.95 | \$9.86 | \$7.88 | \$5.91 |
| | 196306CX | — | A51813D | 23 | +18/1.3 | 120@60 | 2.5mm x 5.5mm female 2 | No | Black | 3.6 x 2.4 x 2.0 | 6'6' | 1.8 | UL/CSA | 12.95 | 11.69 | 9.34 | 7.04 |

▲ Manufacturer and Manufacturer Cross Reference Number may vary except for Mean Well, Phihong, Jameco, and GlobTek



**** Accessory Power Input Cords for
Regulated Table-Top Power Supplies**

Quantity
SAVE



| Part No. | Ref. No.** | Description | Color | AWG | Certification | Cord Length | Wt. (lbs.) | Cord Type | 1 | 10 | 100 | 250 |
|----------|------------|------------------------|-------|------|---------------|-------------|------------|-----------|--------|--------|--------|--------|
| 38041CX | 1 | 3-conductor power cord | Beige | 18/3 | UL/CSA | 6' | 0.4 | SVT | \$3.49 | \$3.15 | \$2.79 | \$2.49 |
| 38050CX | 2 | 3-conductor power cord | Black | 18/3 | UL/CSA | 6' | 0.4 | SVT | 3.75 | 3.25 | 2.69 | 2.05 |
| 189587CX | 3 | 2-conductor power cord | Black | 18/2 | UL/CSA | 6' | 0.3 | SPT | 2.95 | 2.49 | 2.15 | 1.59 |

For Additional Power Cords See Page 156.

GlobTek®

AC-to-DC Medical Table-Top Regulated Switching Power Supplies

- Input voltage: 90-264VAC @ 47-63Hz
- 3-wire AC input
- Leakage current: 0.1mA maximum
- Isolation voltage: 4,000VAC
- Regulation (line & load): ±5%
- Ripple and noise: 1% or 100mV, whichever is smaller
- 2.5mm x 5.5mm female center positive
- Cord length (DC/AC): 6' / use P/N 38050CX
- Size: 2.9"L x 2.0"W x 1.6"H
- UL/CUL/TUV/CE approved for medical applications



| Part Number | Product Number | Power (W) | Output Volts (VDC)/Current (A) | Pricing | | | |
|-------------|----------------|-----------|--------------------------------|---------|---------|---------|---------|
| | | | | 1 | 10 | 50 | 100 |
| 230658CX | TR9CA2600CP | 13.0 | +5/2.6 | \$32.95 | \$29.65 | \$26.69 | \$23.99 |
| 230682CX | TR9CE1250CP | 15.6 | +12/1.3 | 32.95 | 29.65 | 26.69 | 23.99 |
| 230691CX | TR9CG1200CP | 18.0 | +15/1.2 | 32.95 | 29.65 | 26.69 | 23.99 |
| 230711CX | TR9CI750CP | 16.8 | +24/0.7 | 32.95 | 29.65 | 26.69 | 23.99 |
| 230738CX | TR9CA6000LCP | 30.0 | +5/6.0 | 52.95 | 47.65 | 42.89 | 38.59 |
| 230762CX | TR9CE4000LCP | 49.2 | +12/4.0 | 52.95 | 47.65 | 42.89 | 38.59 |
| 230771CX | TR9CG3333LCP | 49.5 | +15/3.3 | 52.95 | 47.65 | 38.15 | 28.59 |
| 230797CX | TR9CI2100LCP | 50.4 | +24/2.1 | 52.95 | 47.65 | 42.89 | 38.59 |



GlobTek®

AC-to-DC Medical Regulated Switching Wall Adapters

- Input voltage: 100/240VAC @ 47-63Hz
- 3-prong input plug
- Leakage current: 0.1mA maximum
- Isolation voltage: 4,000VAC
- Regulation (line & load): ±5%
- Ripple and noise: 1% or 100mV, whichever is smaller
- 2.5mm x 5.5mm female center positive
- Output cord length: 6'
- Size: 2.9"H x 1.9"W x 1.6"D
- Agency approval: UL/CUL/TUV/CE approved for medical applications



| Part Number | Product Number | Power (W) | Output Volts (VDC)/Current (A) | Pricing | | | |
|-------------|----------------|-----------|--------------------------------|---------|---------|---------|---------|
| | | | | 1 | 10 | 50 | 100 |
| 230818CX | WR92A2600LCP | 13.0 | +5@2.6 | \$32.95 | \$29.65 | \$26.69 | \$23.99 |
| 230842CX | WR92E1250LCP | 15.6 | +12@1.3 | 32.95 | 29.65 | 26.69 | 23.99 |
| 230851CX | WR92G1200LCP | 18.0 | +15@1.2 | 32.95 | 29.65 | 26.69 | 23.99 |
| 230877CX | WR92I750LCP | 16.8 | +24@0.75 | 32.95 | 29.65 | 26.69 | 23.99 |

For Open-Frame Medical Power Supplies see page 130.

AC-to-DC Regulated Switching Wall Adapters

Interchangeable Plug Wall Adapters

- Field changeable AC Plugs (sold separately, see below)
- Power-On LED
- Input voltage: 90-264VAC@47-63Hz
- Output connector: 2.1mm x 5.5mm female center positive

4 to 5-Watt Wall Adapters (Plug clip required, see below)

- Applications: PDAs, digital cameras, MPEG players, personal electronics
- Dimensions: 2.8"L x 1.8"W x 1.2"H

- Regulated output
- Double Insulated
- Class B EMI



| Part No. | Manufacturer | Product No. | Power (W) | Output Voltage (VDC) | Current (A) | Ripple (mVp-p) | Line Regulation | Load Regulation | 1 | 5 | 25 | 100 |
|----------|--------------|-------------|-----------|----------------------|-------------|----------------|-----------------|-----------------|---------|---------|---------|---------|
| 228734CX | Phihong | PSA05R-033 | 4.0 | 3.3 | 1.2 | 50 | ±1% | ±5% | \$16.95 | \$15.25 | \$13.75 | \$12.35 |
| 228742CX | Phihong | PSA05R-050 | 5.0 | 5.0 | 1.0 | 50 | ±1% | ±5% | 16.95 | 15.25 | 13.75 | 12.35 |
| 228751CX | Phihong | PSA05R-090 | 5.0 | 9.0 | 0.56 | 90 | ±1% | ±5% | 16.95 | 15.25 | 13.75 | 12.35 |
| 228769CX | Phihong | PSA05R-120 | 5.0 | 12.0 | 0.42 | 120 | ±1% | ±5% | 16.95 | 15.25 | 13.75 | 12.35 |

6 to 10-Watt Wall Adapters (Plug clip required, see below)

- Applications: wireless communications, portable equipment, digital camera, peripherals, networking
- Dimensions: 3.4"L x 2.1"W x 1.4"H

- Weight: 0.3 lbs.

- Efficiency: 65% typical



| Part No. | Manufacturer | Product No. | Power (W) | Output Voltage (VDC) | Current (A) | Ripple (mVp-p) | Line Regulation | Load Regulation | 1 | 5 | 25 | 100 |
|----------|--------------|-------------|-----------|----------------------|-------------|----------------|-----------------|-----------------|---------|---------|---------|---------|
| 228785CX | Phihong | PSA11R-033 | 6.6 | 3.3 | 2.0 | 50 | ±1% | ±5% | \$17.95 | \$16.15 | \$14.55 | \$13.09 |
| 228793CX | Phihong | PSA11R-050 | 10.0 | 5.0 | 2.0 | 50 | ±1% | ±5% | 17.95 | 16.15 | 14.55 | 13.09 |
| 228806CX | Phihong | PSA11R-090 | 10.0 | 9.0 | 1.1 | 90 | ±1% | ±5% | 17.95 | 16.15 | 14.55 | 13.09 |
| 228814CX | Phihong | PSA11R-120 | 10.0 | 12.0 | 0.83 | 120 | ±1% | ±5% | 17.95 | 16.15 | 14.55 | 13.09 |
| 228822CX | Phihong | PSA11R-150 | 10.0 | 15.0 | 0.67 | 150 | ±1% | ±5% | 17.95 | 16.15 | 14.55 | 13.09 |
| 228777CX | Phihong | PSA11R-240 | 10.0 | 24.0 | 0.42 | 240 | ±1% | ±5% | 17.95 | 16.15 | 14.55 | 13.09 |

15 to 20-Watt Wall Adapters with LoadSense™ (Plug clip required, see below)

- Senses and controls the voltage out the connector, eliminating the effect of a voltage drop in the cable
- Applications: peripherals, portable equipment, gaming machines, point-of-sale equipment, network equipment
- Dimensions: 3.9"L x 2.5"W x 1.4"H

- Efficiency: 70% Typical



| Part No. | Manufacturer | Product No. | Power (W) | Output Voltage (VDC) | Current (A) | Ripple (mVp-p) | Line Regulation | Load Regulation | 1 | 5 | 25 | 100 |
|----------|--------------|-------------|-----------|----------------------|-------------|----------------|-----------------|-----------------|---------|---------|---------|---------|
| 228831CX | Phihong | PSA21R-050 | 15.0 | 5.0 | 3.0 | 50 | ±1% | ±2% | \$27.95 | \$25.15 | \$22.65 | \$20.39 |
| 228849CX | Phihong | PSA21R-120 | 20.0 | 12.0 | 1.67 | 120 | ±1% | ±2% | 27.95 | 25.15 | 22.65 | 20.39 |
| 228857CX | Phihong | PSA21R-150 | 20.0 | 15.0 | 1.33 | 150 | ±1% | ±2% | 27.95 | 25.15 | 22.65 | 20.39 |
| 229745CX | Phihong | PSA21R-180 | 20.0 | 18.0 | 1.11 | 180 | ±1% | ±2% | 27.95 | 25.15 | 22.65 | 20.39 |
| 228873CX | Phihong | PSA21R-240 | 20.0 | 24.0 | 0.83 | 240 | ±1% | ±2% | 27.95 | 25.15 | 22.65 | 20.39 |

AC Plug Clips and Plug Clip Kits (sold separately, required for above adapters)

| Part No. | Manufacturer | Product No. | Description | 1 | 10 | 50 | 100 |
|----------|--------------|-------------|-------------------------------|-------|-------|-------|-------|
| 229155CX | Phihong | RPA | USA Plug | \$.53 | \$.51 | \$.50 | \$.49 |
| 229163CX | Phihong | RPE | European Plug | .61 | .59 | .58 | .57 |
| 229171CX | Phihong | RPK | UK Plug | .99 | .97 | .94 | .91 |
| 229180CX | Phihong | RPKIT | Kit w/ RPA/RPE/RPK/RPS (AUST) | 2.65 | 2.39 | 2.32 | 2.25 |



AC-to-DC Regulated Switching Wall Adapters

Color Code Legend
New Sale Qty. Save Closeout

Slim Line Regulated Switching Wall Adapters

Introducing our new slim line switching wall adapters. Compact in size and lightweight, they are the perfect power solution in all those applications where space is critical. And their high efficiency satisfies requirements for minimizing power losses. You no longer have to deal with traditional wall adapters that block unused outlets in wall plates and power strips/surge protectors.

- Input voltage: 100 – 240VAC@47-63Hz
- 2-wire AC input
- Output connector: 2.1mm x 5.5mm F2 (center positive)
- Agency approvals: UL/CUL/TUV/CE
- Output cord length: 6'
- Color: black



We'll Brand the Adapters With Your Company Name
Call 1-800-831-4242 For Details

| Part Number | Product Number | Output Rating | | Size (H"xW"xD") | Wt. (lbs.) | Pricing | | | |
|-------------|----------------|---------------|--------------|-----------------|------------|---------|--------|--------|--------|
| | | Volts (VDC) | Current (mA) | | | 1 | 10 | 50 | 100 |
| 251539CX | S08AA033100 | 3.3 | 1000 | 2.5x1.1x1.7 | 0.2 | \$10.49 | \$9.52 | \$8.79 | \$8.48 |
| 251563CX | S08AA033150 | 3.3 | 1500 | 2.5x1.1x1.7 | 0.2 | 10.95 | 9.94 | 9.17 | 8.85 |
| 251598CX | S15AA033250 | 3.3 | 2500 | 2.9x1.3x2.2 | 0.3 | 11.49 | 10.43 | 9.63 | 9.29 |
| 252700CX | S08AB050050 | 5.0 | 500 | 2.5x1.1x1.7 | 0.2 | 10.49 | 9.52 | 8.79 | 8.48 |
| 252718CX | S08AB050100 | 5.0 | 1000 | 2.5x1.1x1.7 | 0.2 | 10.95 | 9.94 | 9.17 | 8.85 |
| 252726CX | S08AB050150 | 5.0 | 1500 | 2.5x1.1x1.7 | 0.2 | 11.49 | 10.43 | 9.63 | 9.29 |
| 252734CX | S15AB050250 | 5.0 | 2500 | 2.9x1.3x2.2 | 0.3 | 11.95 | 10.85 | 9.99 | 9.64 |
| 252742CX | S08AD090025 | 9.0 | 250 | 2.5x1.1x1.7 | 0.2 | 10.49 | 9.52 | 8.79 | 8.48 |
| 252751CX | S08AD090050 | 9.0 | 500 | 2.5x1.1x1.7 | 0.2 | 10.95 | 9.94 | 9.17 | 8.85 |
| 252769CX | S08AD090090 | 9.0 | 800 | 2.5x1.1x1.7 | 0.2 | 11.49 | 10.43 | 9.63 | 9.29 |
| 252777CX | S15AD090120 | 9.0 | 1200 | 2.9x1.3x2.2 | 0.3 | 11.95 | 10.85 | 9.99 | 9.64 |
| 252785CX | S15AS090170 | 9.0 | 1500 | 2.9x1.3x2.2 | 0.3 | 12.49 | 11.34 | 10.47 | 10.10 |
| 252793CX | S08AE120025 | 12.0 | 250 | 2.5x1.1x1.7 | 0.2 | 10.49 | 9.52 | 8.79 | 8.48 |

| Part Number | Product Number | Output Rating | | Size (H"xW"xD") | Wt. (lbs.) | Pricing | | | |
|-------------|----------------|---------------|--------------|-----------------|------------|---------|--------|--------|--------|
| | | Volts (VDC) | Current (mA) | | | 1 | 10 | 50 | 100 |
| 252806CX | S08AE120050 | 12.0 | 500 | 2.5x1.1x1.7 | 0.2 | \$10.95 | \$9.94 | \$9.17 | \$8.85 |
| 252814CX | S08AE120070 | 12.0 | 600 | 2.5x1.1x1.7 | 0.2 | 11.49 | 10.43 | 9.63 | 9.29 |
| 252822CX | S15AE120100 | 12.0 | 1000 | 2.9x1.3x2.2 | 0.3 | 11.95 | 10.85 | 9.99 | 9.64 |
| 252831CX | S15AE120140 | 12.0 | 1250 | 2.9x1.3x2.2 | 0.3 | 12.95 | 11.76 | 10.85 | 10.47 |
| 252881CX | S08AF150013 | 15.0 | 130 | 2.5x1.1x1.7 | 0.2 | 10.49 | 9.52 | 8.79 | 8.48 |
| 252890CX | S08AF150050 | 15.0 | 500 | 2.5x1.1x1.7 | 0.2 | 11.49 | 10.43 | 9.63 | 9.29 |
| 254756CX | S15AF150080 | 15.0 | 800 | 2.9x1.3x2.2 | 0.2 | 11.95 | 10.85 | 9.99 | 9.64 |
| 252902CX | S15AF150120 | 15.0 | 1200 | 2.9x1.3x2.2 | 0.3 | 12.95 | 11.76 | 10.85 | 10.47 |
| 252849CX | S08AH240013 | 24.0 | 130 | 2.5x1.1x1.7 | 0.2 | 10.49 | 9.52 | 8.79 | 8.48 |
| 252857CX | S08AH240025 | 24.0 | 250 | 2.5x1.1x1.7 | 0.2 | 10.95 | 9.94 | 9.17 | 8.85 |
| 252865CX | S15AH240050 | 24.0 | 500 | 2.9x1.3x2.2 | 0.3 | 11.95 | 10.85 | 9.99 | 9.64 |
| 252873CX | S15AH240063 | 24.0 | 630 | 2.9x1.3x2.2 | 0.3 | 12.49 | 11.34 | 10.85 | 10.47 |

Compact Switching DC Regulated Power Adapter with Detachable Plugs

This state-of-the-art switching power adapter offers some major advantages such as stabilized outputs, short circuit and overload protection, compact design, and low idle consumption versus typical wall adapters.

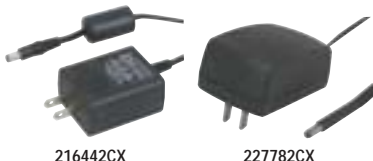
- Universal input voltage: 100-240VAC
- Power output: 10W
- Efficiency: 80%
- Selectable output voltages: 3 / 4.5 / 6 / 7.5 / 9 / 12 VDC @ 800mA (regulated) with 1.5A max. output
- 8 plugs: 2.5mm M mono, 3.5mm M mono, 1.0mm x 3.0mm F, 1.3mm x 3.5mm F, 1.7mm x 4.0mm F, 2.1mm x 5.0mm F, 1.5mm x 5.5mm F, and 2.5mm x 5.5mm F

| Part No. | Description | Size | Weight | Price |
|----------|-----------------------|-----------------------|----------|---------|
| 239564CX | Compact power adapter | 2.9"H x 1.2"W x 1.9"D | 0.2 lbs. | \$22.95 |



AC-to-DC Regulated Wall Adapters

We specialize in Wall Adapters – Call for additional OEM PRICING.
We will change any power plug (pg 83) on any DC wall adapter listed (100 pc. minimum).



216442CX

227782CX

SALE

Polarity 1 (+) (center negative)
Polarity 2 (–) (center positive)



Female



Quantity
SAVE

249324CX

224590CX

2-Wire AC Input – Switching Regulated

| Part Number | Brand▲ | Product Number▲ | Output Rating | | Output Connector ID x OD/Polarity F = female; M = male | Input VAC @ Hz | Size H" x W" x D" | Case Color | Output Cord Length | Weight (lbs.) | Agency Approvals | Pricing | | | |
|-------------|--------------------|-----------------|---------------|--------------|--|----------------|-------------------|------------|--------------------|---------------|------------------|---------|--------|--------|--------|
| | | | Voltage (VDC) | Current (mA) | | | | | | | | 1 | 10 | 50 | 100 |
| 230543CX | Phihong | PSA05A-050 | 5 | 1000 | 2.1mm x 5.5mm F 2 | 90-264@47-63 | 2.4 x 1.8 x 1.0 | Black | 6' | 0.4 | UL/CUL | \$10.95 | \$9.85 | \$8.39 | \$6.29 |
| 225995CX | Delta Electronics | ADP-5DB | 5 | 1000 | 2.5mm x 5.5mm F 2 | 100-120@50-60 | 2.5 x 1.8 x 1.1 | Black | 6' | 0.2 | UL | 10.95 | 9.85 | 7.89 | 5.89 |
| 216442CX | AK II Power Supply | A05C1-05MP | 5 | 1600 | 2.5mm x 5.5mm F 2 | 100-240@50-60 | 2.2 x 1.8 x 1.1 | Black | 6' | 0.4 | UL/CUL/CE | 12.95 | 11.65 | 10.49 | 9.49 |
| 228881CX | Phihong | PSC10A-050 | 5 | 2000 | 2.1mm x 5.5mm F 2 | 90-132@57-63 | 2.9 x 1.9 x 1.4 | Black | 6' | 0.4 | UL/CUL | 12.79 | 11.99 | 10.99 | 10.49 |
| 189190CX | Interex | EPA101MU-05B | 5 | 2000 | 2.5mm x 5.5mm F 1 | 100-240@50-60 | 3.2 x 2.8 x 1.3 | Black | 6' | 0.4 | UL/CUL | 12.49 | 9.99 | 7.49 | 5.25 |
| 210892CX | Interex | EPA101MU | 5 | 2000 | 2.5mm x 5.5mm F 2 | 100-240@50-60 | 3.2 x 2.4 x 1.3 | Black | 6' | 0.4 | UL/CUL | 12.95 | 11.69 | 10.49 | 8.75 |
| 236751CX | GlobTek | WR92A2600CCP† | 5 | 2600 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 2.9 x 1.9 x 1.6 | Black | 6' | 0.5 | UL/CUL/TUV/CE | 13.49 | 12.15 | 10.95 | 9.85 |
| 228937CX | Phihong | PSC15A-050 | 5 | 3000 | 2.1mm x 5.5mm F 2 | 90-132@57-63 | 2.9 x 1.9 x 1.4 | Black | 6' | 0.4 | UL/CUL | 13.55 | 12.29 | 11.35 | 10.95 |
| 228890CX | Phihong | PSC10A-090S | 9 | 1100 | 2.1mm x 5.5mm F 2 | 90-132@57-63 | 2.9 x 1.9 x 1.4 | Black | 6' | 0.4 | UL/CUL | 12.79 | 11.99 | 10.99 | 10.49 |
| 228945CX | Phihong | PSC15A-090 | 9 | 1600 | 2.1mm x 5.5mm F 2 | 90-132@57-63 | 2.9 x 1.9 x 1.4 | Black | 6' | 0.4 | UL/CUL | 13.55 | 12.29 | 11.35 | 10.95 |
| 227782CX | Mean Well | KWM020-09B | 9 | 1670 | 2.1mm x 5.5mm F 2 | 90-264@47-63 | 1.6 x 2.0 x 2.9 | Black | 6' | 0.4 | UL/CSA | 13.55 | 12.29 | 11.35 | 9.89 |
| 230551CX | Phihong | PSA05A-120 | 12 | 420 | 2.1mm x 5.5mm F 2 | 90-264@47-63 | 2.4 x 1.8 x 1.0 | Black | 6' | 0.4 | UL/CUL | 16.39 | 15.95 | 14.75 | 13.29 |
| 249324CX | Phillips | A600M101 | 12 | 500 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 2.4 x 1.8 x 1.0 | Black | 6' | 0.4 | UL/CSA | 13.19 | 11.95 | 11.15 | 9.75 |
| 229753CX | Phihong | PSC10A-120S | 12 | 830 | 2.1mm x 5.5mm F 2 | 90-132@57-63 | 2.9 x 1.9 x 1.4 | Black | 6' | 0.4 | UL/CUL | 12.95 | 11.89 | 10.99 | 10.59 |
| 228953CX | Phihong | PSC15A-120 | 12 | 1250 | 2.1mm x 5.5mm F 2 | 90-132@57-63 | 2.9 x 1.9 x 1.4 | Black | 6' | 0.4 | UL/CUL | 13.55 | 12.29 | 11.35 | 10.95 |
| 220687CX | Mean Well | L15D12B-P1J | 12 | 1250 | 2.1mm x 5.5mm F 2 | 90-264@50-60 | 3.1 x 2.2 x 1.2 | Black | 6' | 0.4 | UL/CSA/TUV | 13.55 | 12.29 | 11.35 | 9.89 |
| 235096CX | — | DSA-0151A-12S | 12 | 1250 | 2.1mm x 5.5mm F 2 | 100-120@50-60 | 3.2 x 2.1 x 1.4 | Black | 6' | 0.3 | UL/CUL | 13.49 | 12.15 | 10.95 | 9.85 |
| 249076CX | Mean Well | G15U-3P2L | 12 | 1250 | 2.5mm x 5.5mm F 2 | 100-240@50-60 | 3.1 x 2.1 x 1.4 | Black | 6' | 0.4 | UL/CUL/CE | 14.95 | 13.49 | 12.15 | 10.95 |
| 249244CX | Horizon | DFU1250/G9760 | 12 | 1500 | 2.1mm x 5.5mm F 2 | 108-132@50-60 | 3.3 x 2.7 x 2.2 | Black | 6' | 0.4 | UL/CUL | 14.95 | 13.49 | 12.15 | 10.95 |
| 228911CX | Phihong | PSC10A-150S | 15 | 670 | 2.1mm x 5.5mm F 2 | 90-132@57-63 | 2.9 x 1.9 x 1.4 | Black | 6' | 0.4 | UL/CUL | 12.95 | 11.89 | 10.99 | 10.59 |
| 224590CX | Mean Well | L15D15B-P1J | 15 | 1000 | 2.1mm x 5.5mm F 2 | 90-240@50-60 | 3.2 x 2.2 x 1.3 | Black | 6' | 0.5 | UL/CSA | 13.55 | 12.29 | 11.35 | 9.89 |

† 3-wire AC input

▲ Brand and Product Number may vary except for Mean Well, Phihong, GlobTek and Jameco

AC-to-DC Wall Adapters continued on pages 149 - 151



We specialize in Wall Adapters – Call for additional OEM PRICING.
We will change any power plug (pg 83) on any DC wall adapter listed (100 pc. minimum).

Polarity 1 ⊕ ⊖ (center negative)

Polarity 2 ⊖ ⊕ (center positive)



2-Wire AC Input – Switching Regulated

| Part Number | Brand▲ | Product Number▲ | Output Rating | | Output Connector ID x OD/Polarity F = female; M = male | Input VAC @ Hz | Size H" x W" x D" | Case Color | Output Cord Length | Weight (lbs.) | Agency Approvals | Pricing | | | |
|-------------|-----------|-----------------|---------------|--------------|---|----------------|-------------------|------------|--------------------|---------------|------------------|---------|---------|---------|---------|
| | | | Voltage (VDC) | Current (mA) | | | | | | | | 1 | 10 | 50 | 100 |
| 228961CX | Phihong | PSC15A-150 | 15 | 1000 | 2.1mm x 5.5mm F 2 | 90-132@57-63 | 2.9 x 1.9 x 1.4 | Black | 6' | 0.4 | UL/CUL | \$13.55 | \$12.29 | \$11.35 | \$10.95 |
| 168487CX | Mean Well | KWM020188 | 18 | 1000 | 2.1mm x 5.5mm F 2 | 100-240@50-60 | 2.9 x 1.9 x 1.6 | Black | 6' | 0.4 | UL/CUL | 17.95 | 16.19 | 14.55 | 13.09 |
| 228929CX | Phihong | PSC10A-240S | 24 | 420 | 2.1mm x 5.5mm F 2 | 90-132@57-63 | 2.9 x 1.9 x 1.4 | Black | 6' | 0.4 | UL/CUL | 12.95 | 11.89 | 10.99 | 10.59 |
| 228970CX | Phihong | PSC15A-240 | 24 | 620 | 2.1mm x 5.5mm F 2 | 90-132@57-63 | 2.9 x 1.9 x 1.4 | Black | 6' | 0.4 | UL/CUL | 13.55 | 12.29 | 11.35 | 10.95 |

2-Wire AC Input – Linear Regulated

| | | | | | | | | | | | | | | | |
|----------|------------------|----------------|----|------|-------------------------------|-----------|-----------------|-------|-----|-----|--------|--------|--------|--------|--------|
| 236435CX | APX | AP2814 | 5 | 300 | 1.3mm x 3.5mm right angle F 2 | 120@60 | 2.9 x 1.9 x 1.6 | Black | 6' | 0.6 | UL/CSA | \$7.95 | \$7.16 | \$5.72 | \$4.29 |
| 164101CX | Jameco | DCR505F12 | 5 | 500 | 2.1mm x 5.5mm F 2 | 120@60 | 2.8 x 2.0 x 1.6 | Black | 6' | 0.6 | UL/CSA | 9.95 | 8.96 | 8.06 | 7.25 |
| 220935CX | Jameco | DDU050060 | 5 | 600 | 2.1mm x 5.5mm F 1 | 120@60 | 2.7 x 2.2 x 1.9 | Black | 6' | 0.8 | UL/CUL | 12.29 | 11.06 | 9.95 | 8.96 |
| 171301CX | Imitation | JOD48U08 | 5 | 1000 | 2.1mm x 5.5mm F 2 | 120@60 | 3.1 x 2.9 x 2.0 | Black | 6' | 1.0 | UL/CUL | 10.95 | 9.89 | 8.89 | 7.99 |
| 196411CX | Jameco | DCR510F12V | 5 | 1000 | 2.1mm x 5.5mm F 2 | 120@60 | 3.3 x 2.2 x 1.9 | Ivory | 6' | 1.0 | UL/CUL | 10.95 | 9.86 | 7.88 | 5.81 |
| 168604CX | ITE Power Supply | RWP480505 | 5 | 1000 | 2.5mm x 5.5mm F 2 | 120@60 | 3.3 x 2.2 x 1.9 | Black | 6' | 1.2 | UL/CSA | 11.39 | 10.49 | 9.65 | 8.29 |
| 228726CX | ORB | 777-052000S-UF | 5 | 2000 | 2.1mm x 5.5mm F 2 | 100@50-60 | 3.1 x 2.1 x 1.5 | Black | 5' | 0.5 | UL/CUL | 12.95 | 10.35 | 7.79 | 5.49 |
| 248743CX | MEI | EPA-101M-05A | 5 | 2500 | 2.1mm x 5.5mm F 2 | 120@60 | 3.2 x 2.4 x 1.4 | Black | 6' | 0.5 | UL/CUL | 13.49 | 12.15 | 9.75 | 7.29 |
| 190511CX | Salom Electric | SADB-0885 | 6 | 200 | 2.1mm x 5.5mm F 2 | 115@60 | 2.6 x 1.8 x 1.5 | Black | 6' | 0.4 | UL/CUL | 6.95 | 6.26 | 5.44 | 4.06 |
| 283573CX | — | DC600500 | 6 | 500 | 2.1mm x 5.5mm F 2 | 120@60 | 3.1 x 2.0 x 1.7 | Black | 6' | 0.6 | UL/CSA | 7.85 | 7.07 | 6.36 | 5.72 |
| 190529CX | NOMA | AD9123 | 9 | 250 | 2.5mm x 5.5mm right angle F 2 | 120@60 | 2.5 x 2.0 x 1.6 | Black | 12' | 0.5 | UL/CSA | 6.49 | 5.85 | 4.65 | 3.50 |
| 220898CX | Jameco | DCU120020 | 12 | 200 | 2.1mm x 5.5mm F 1 | 120@60 | 2.5 x 2.0 x 1.7 | Black | 6' | 0.5 | UL/CUL | 7.85 | 7.29 | 6.85 | 6.45 |
| 162996CX | Jameco | DCR1205F12 | 12 | 500 | 2.1mm x 5.5mm F 2 | 120@60 | 3.2 x 2.2 x 1.9 | Black | 6' | 0.9 | UL/CUL | 9.95 | 8.96 | 8.06 | 7.25 |
| 170245CX | Jameco | DCR1210F12 | 12 | 1000 | 2.1mm x 5.5mm F 2 | 120@60 | 3.2 x 2.3 x 2.0 | Black | 6' | 1.2 | UL/CUL | 13.95 | 12.59 | 11.35 | 10.19 |
| 174861CX | Jameco | DCR2405F12 | 24 | 500 | 2.1mm x 5.5mm F 2 | 120@60 | 3.4 x 2.7 x 2.2 | Black | 6' | 1.3 | UL/CUL | 11.95 | 10.79 | 9.69 | 8.75 |
| 174879CX | Jameco | DCR2405F52 | 24 | 500 | 2.5mm x 5.5mm F 2 | 120@60 | 3.4 x 2.7 x 2.2 | Black | 6' | 1.3 | — | 11.95 | 10.79 | 9.69 | 8.75 |

▲ Brand and Product Number may vary except for Mean Well, Phihong, GlobTek and Jameco

AC-to-DC Unregulated Wall Adapters

We will change any power plug (pg 83) on any DC wall adapter listed (100 pc. minimum).

Quantity
SAVE

• Input: 120VAC @ 60Hz

Polarity 1 ⊕ ⊖ (center negative)



Polarity 2 ⊖ ⊕ (center positive)



2-Wire AC Input – Unregulated

| Part Number | Brand▲ | Product Number▲ | Output Rating | | Output Connector ID x OD/Polarity F = female; M = male | Size H" x W" x D" | Case Color | Output Cord Length | Weight (lbs.) | Agency Approvals | Pricing | | | |
|-------------|------------------|-----------------|---------------|--------------|---|-------------------|------------|--------------------|---------------|------------------|---------|--------|--------|--------|
| | | | Voltage (VDC) | Current (mA) | | | | | | | 1 | 10 | 50 | 100 |
| 237227CX | Freeplay | DX351307 | 4.5 | 100 | 1.3mm x 3.5mm F 2 | 2.4 x 1.7 x 1.4 | Black | 6' | 0.4 | UL/CSA | \$4.49 | \$4.04 | \$3.23 | \$2.42 |
| 243070CX | Regal | WH045300-10N | 4.5 | 300 | 2.1mm x 5.5mm F 1 | 2.2 x 1.7 x 1.5 | Black | 6' | 0.4 | UL/CSA | 6.95 | 6.26 | 5.00 | 3.75 |
| 112070CX | Jameco | DC502F5 | 5 | 225 | 2.5mm x 5.5mm F 2 | 1.9 x 2.2 x 2.0 | Black | 7' | 0.3 | UL/CSA | 7.29 | 6.59 | 5.95 | 5.35 |
| 155601CX | Jameco | DC510F1 | 5 | 1000 | 2.1mm x 5.5mm F 2 | 2.6 x 2.0 x 1.7 | Black | 6' | 0.7 | UL/CSA | 5.19 | 4.67 | 4.20 | 3.78 |
| 219651CX | — | FE4823-050E120 | 5 | 1200 | 2.5mm x 5.5mm F 2 | 3.5 x 2.4 x 1.9 | Black | 6' | 1.2 | UL/CUL | 5.16 | 4.76 | 3.81 | 2.86 |
| 237251CX | Freeplay | DPX350817 | 6 | 100 | 2.1mm x 5.5mm F 2 | 2.4 x 1.7 x 1.4 | Black | 6' | 0.4 | UL/CSA | 3.95 | 3.59 | 2.85 | 2.15 |
| 243117CX | Regal | WH060200-10N | 6 | 200 | 2.5mm x 5.5mm F 1 | 2.2 x 1.7 x 1.5 | Black | 6' | 0.4 | UL/CSA | 3.95 | 3.59 | 2.85 | 2.15 |
| 119255CX | Jameco | DC605F11 | 6 | 500 | 2.1mm x 5.5mm F 1 | 2.3 x 1.8 x 1.8 | Black | 6' | 0.6 | UL/CUL | 4.29 | 3.86 | 3.09 | 2.35 |
| 101266CX | Jameco | DC605F12 | 6 | 500 | 2.1mm x 5.5mm F 2 | 2.4 x 1.9 x 1.6 | Black | 6' | 0.4 | UL/CSA | 4.29 | 3.86 | 3.47 | 3.13 |
| 15544CX | Jameco | DC605M3 | 6 | 500 | 3.5mm M 2 | 2.4 x 1.9 x 1.6 | Black | 6' | 0.4 | UL/CSA | 4.29 | 3.86 | 3.47 | 3.13 |
| 201451CX | APX Technologies | AP4733 | 6 | 700 | 2.1mm x 5.5mm F 2 | 2.6 x 1.9 x 1.4 | Black | 6' | 0.5 | UL/CUL | 4.95 | 3.95 | 2.95 | 2.19 |
| 147707CX | Jameco | DC608F1 | 6 | 800 | 2.1mm x 5.5mm F 2 | 2.3 x 2.0 x 1.6 | Black | 6' | 0.6 | UL/CSA | 4.95 | 4.49 | 4.05 | 3.65 |
| 220943CX | Jameco | DCU060120 | 6 | 1200 | 2.1mm x 5.5mm F 1 | 2.5 x 2.0 x 1.7 | Black | 6' | 0.7 | UL/CUL | 6.95 | 6.26 | 5.63 | 5.07 |
| 227951CX | — | JOD-48U-33 | 6 | 2100 | 2.1mm x 5.5mm F 2 | 3.3 x 2.2 x 1.9 | Black | 6' | 1.3 | UL/CUL | 7.95 | 7.15 | 6.45 | 5.79 |
| 220951CX | Jameco | DCU075100 | 7.5 | 1000 | 2.1mm x 5.5mm F 1 | 2.5 x 2.0 x 1.7 | Black | 6' | 0.6 | UL/CUL | 9.19 | 8.59 | 7.55 | 7.19 |
| 248751CX | Uniq | AD-071A | 7.5 | 1000 | 2.5mm x 5.5mm F 2 | 2.3 x 2.3 x 1.9 | Black | 6' | 0.9 | UL/CSA | 6.49 | 5.85 | 4.69 | 3.50 |
| 249279CX | AESP | FO-AC-4305 | 7.5 | 1000 | 2.1mm x 5.5mm right angle F 2 | 3.2 x 2.0 x 1.7 | Black | 6' | 0.8 | UL/CUL | 6.95 | 6.25 | 5.65 | 5.09 |
| 280250CX | Jameco | DDU075110 | 7.5 | 1100 | 2.1mm x 5.5mm F 2 | 1.8 x 1.2 x 0.8 | Black | 6' | 0.9 | UL/CUL | 6.29 | 4.99 | 4.30 | 4.19 |
| 230623CX | — | MKD-48752100 | 7.5 | 2100 | 2.1mm x 5.5mm F 2 | 3.3 x 2.2 x 1.9 | Black | 6' | 1.3 | UL/CUL | 7.95 | 7.15 | 5.75 | 4.29 |
| 127511CX | Jameco | DC810F1 | 8 | 1000 | 2.1mm x 5.5mm F 2 | 3.1 x 2.5 x 2.1 | Black | 6' | 1.3 | UL | 7.95 | 7.19 | 6.45 | 5.85 |
| 265480CX | Uniden | AD-600B | 9 | 100 | 2.1mm x 5.5mm right angle F 2 | 2.1 x 1.4 x 1.4 | Black | 6' | 0.3 | UL/CSA | 3.49 | 2.79 | 2.45 | 2.35 |
| 265498CX | Uniden | AD-600W | 9 | 100 | 2.1mm x 5.5mm right angle F 2 | 2.1 x 1.4 x 1.4 | White | 6' | 0.3 | UL/CSA | 3.49 | 2.79 | 2.45 | 2.35 |
| 132025CX | Jameco | DC902F11 | 9 | 200 | 2.1mm x 5.5mm F 1 | 2.1 x 1.7 x 1.6 | Black | 6' | 0.4 | UL/CSA | 4.95 | 4.49 | 3.95 | 3.59 |

▲ Brand and Product Number may vary except for Mean Well, Phihong, GlobTek and Jameco

More AC-to-DC Wall Adapters listed on pages 149 - 151

AC-to-DC Unregulated Wall Adapters (Continued)

Color Code Legend
New Sale Qty Save Closeout



We specialize in Wall Adapters – Call for additional OEM PRICING.
We will change any power plug (pg 83) on any DC wall adapter listed (100 pc. minimum).

• Input: 120VAC @ 60Hz

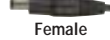


Quantity
SAVE



Polarity 1 \oplus \ominus \ominus (center negative)

Polarity 2 \ominus \ominus \oplus (center positive)



2-Wire AC Input – Unregulated

| Part Number | Brand▲ | Product Number▲ | Output Rating | | Output Connector ID x OD/Polarity F = female; M = male | Size H" x W" x D" | Case Color | Output Cord Length | Weight (lbs.) | Agency Approvals | Pricing | | | |
|-------------|------------------|-----------------|---------------|--------------|--|----------------------|------------|--------------------|---------------|------------------|---------|--------|--------|--------|
| | | | Voltage (VDC) | Current (mA) | | | | | | | 1 | 10 | 50 | 100 |
| 100845CX | Jameco | DC902F12 | 9 | 200 | 2.1mm x 5.5mm F 2 | 2.1 x 1.7 x 1.5 | Black | 6' | 0.4 | UL/CSA | \$3.95 | \$3.59 | \$2.89 | \$2.15 |
| 237243CX | Freeplay | DPX351322 | 9 | 200 | 2.1mm x 5.5mm F 2 | 2.4 x 1.7 x 1.4 | Black | 6' | 0.4 | UL/CSA | 3.79 | 3.45 | 3.15 | 2.79 |
| 100837CX | Jameco | DIA3590 | 9 | 200 | 3.5mm M 2 | 2.6 x 1.8 x 1.6 | Black | 6' | 0.4 | UL/CSA | 3.95 | 3.59 | 3.25 | 2.95 |
| 191767CX | — | CTPS350903002C0 | 9 | 300 | 1.3mm x 3.5mm right angle F 2 | 2.3 x 1.8 x 1.5 | Black | 6' | 0.4 | UL/CSA | 4.19 | 3.77 | 3.02 | 2.26 |
| 133891CX | — | DC903F1 | 9 | 300 | 2.1mm x 5.5mm F 2 | 2.0 x 1.5 x 1.5 | Black | 6' | 0.4 | UL/CSA | 3.95 | 3.55 | 3.19 | 2.69 |
| 189237CX | ACI World | 35-9-300C | 9 | 300 | 2.5mm x 5.5mm F 2 | 2.2 x 1.7 x 1.4 | Black | 6' | 0.4 | UL/CSA | 4.25 | 3.59 | 2.95 | 2.35 |
| 216469CX | Everglow | D350900300U | 9 | 300 | 2.5mm x 5.5mm F 1 | 2.4 x 1.7 x 1.7 | Black | 6' | 0.4 | UL/CUL | 2.37 | 2.16 | 1.96 | 1.78 |
| 169519CX | Panasonic | KX-TCA1 | 9 | 350 | 2.1mm x 5.5mm right angle F 1 | 2.7 x 1.7 x 1.6 | Dk. Gray | 6' | 0.4 | UL/CSA | 3.89 | 3.50 | 2.80 | 2.10 |
| 202155CX | Jameco | DC9035F12 | 9 | 350 | 2.1mm x 5.5mm F 2 | 3.2 x 2.4 x 2.0 | Black | 6' | 0.3 | UL/CUL | 3.29 | 2.96 | 2.66 | 2.40 |
| 140636CX | Jameco | DC904F5 | 9 | 400 | 2.5mm x 5.5mm F 2 | 2.6 x 2.0 x 2.0 | Black | 6' | 0.6 | UL/CSA | 4.19 | 3.79 | 3.39 | 3.05 |
| 202171CX | Jameco | DC9045F12 | 9 | 450 | 2.1mm x 5.5mm F 2 | 3.3 x 2.9 x 2.3 | Black | 6' | 0.5 | UL/CUL | 3.95 | 3.59 | 3.25 | 2.89 |
| 163627CX | Jameco | DC905F11 | 9 | 500 | 2.1mm x 5.5mm F 1 | 2.5 x 1.9 x 1.7 | Black | 6' | 0.6 | UL/CSA | 5.49 | 4.95 | 4.45 | 3.95 |
| 170270CX | Panasonic | PQLV1 | 9 | 500 | 2.1mm x 5.5mm right angle F 1 | 2.7 x 1.9 x 1.8 | Gray | 6' | 0.6 | UL/CSA | 4.49 | 4.04 | 3.64 | 3.27 |
| 100853CX | Jameco | DC905F12 | 9 | 500 | 2.1mm x 5.5mm F 2 | 2.5 x 1.9 x 1.7 | Black | 6' | 0.6 | UL/CSA | 4.95 | 4.46 | 4.01 | 3.61 |
| 147731CX | Global Village | 43-1125 | 9 | 500 | 2.1mm x 5.5mm F 2 | 2.6 x 2.0 x 1.7 | Beige | 6' | 0.6 | UL/CSA | 4.95 | 4.46 | 3.56 | 2.89 |
| 236937CX | Horizon | DCU090050A | 9 | 500 | 2.5mm x 5.5mm right angle F 2 | 2.5 x 2.0 x 1.7 | Black | 6' | 0.4 | UL/CSA | 5.79 | 5.21 | 4.69 | 4.22 |
| 15561CX | — | DC905M3 | 9 | 500 | 3.5mm M 2 | 2.5 x 2.0 x 1.6 | Black | 6' | 0.5 | UL/CSA | 4.85 | 4.36 | 3.93 | 3.54 |
| 202180CX | Jameco | DC906F12 | 9 | 600 | 2.1mm x 5.5mm F 2 | 3.3 x 2.9 x 2.3 | Black | 6' | 0.6 | UL/CUL | 4.89 | 4.05 | 3.49 | 2.65 |
| 100175CX | Jameco | DC906F5 | 9 | 600 | 2.5mm x 5.5mm F 2 | 2.5 x 1.9 x 1.8 | Black | 6' | 0.6 | UL/CSA | 5.49 | 4.75 | 4.25 | 3.95 |
| 202198CX | Jameco | DC908F12 | 9 | 800 | 2.1mm x 5.5mm F 2 | 3.3 x 2.9 x 2.3 | Black | 6' | 0.6 | UL/CUL | 6.95 | 6.29 | 5.25 | 3.69 |
| 164929CX | CUI Stack | 48-9-900D | 9 | 900 | 2.1mm x 5.5mm F 1 | 2.7 x 2.3 x 1.8 | Black | 6' | 0.9 | UL/CUL | 7.95 | 7.15 | 5.75 | 4.29 |
| 100888CX | Everglow | DDU090100 | 9 | 1000 | 2.1mm x 5.5mm F 2 | 2.6 x 2.4 x 2.0 | Black | 6' | 1.0 | UL/CSA | 7.95 | 7.16 | 5.72 | 4.29 |
| 227774CX | GTE | ADP2108GT | 9 | 1000 | 2.1mm x 5.5mm right angle F 2 | 2.5 x 2.2 x 1.9 | Black | 6' | 0.9 | UL/CUL | 7.95 | 7.15 | 5.75 | 4.29 |
| 127503CX | Atari | DC910F5 | 9 | 1000 | 2.5mm x 5.5mm F 2 | 2.6 x 2.4 x 2.0 | Black | 6' | 0.9 | UL/CSA | 7.49 | 6.75 | 6.05 | 5.05 |
| 15587CX | Atari | PAG1200 | 9 | 1000 | 3.5mm M 2 | 2.6 x 2.4 x 2.0 | Black | 6' | 0.9 | UL/CSA | 7.95 | 7.19 | 6.45 | 5.35 |
| 130526CX | Jaguar | DC912F11 | 9 | 1200 | 2.1mm x 5.5mm F 1 | 2.4 x 2.0 x 1.8 | Black | 6' | 1.0 | UL/CSA | 8.95 | 8.09 | 7.29 | 6.59 |
| 143693CX | Jameco | DC915F1 | 9 | 1500 | 2.1mm x 5.5mm F 2 | 3.3 x 2.5 x 2.3 | Black | 6' | 1.3 | UL/CSA | 9.95 | 8.95 | 6.95 | 5.19 |
| 237067CX | APS | D9-15-950 | 9 | 1500 | 2.5mm x 5.5mm F 2 | 3.1 x 2.3 x 1.9 | Black | 6' | 1.3 | UL/CUL | 9.95 | 8.99 | 7.19 | 5.39 |
| 163993CX | Jameco | DC1202F11R | 12 | 200 | 2.1mm x 5.5mm right angle F 1 | 2.4 x 1.7 x 1.6 | Black | 6' | 0.4 | UL/CSA | 4.79 | 4.31 | 3.88 | 3.49 |
| 100095CX | Jameco | DC1202F1 | 12 | 200 | 2.1mm x 5.5mm F 2 | 2.1 x 1.8 x 1.5 | Black | 6' | 0.4 | UL/CSA | 3.95 | 3.49 | 3.06 | 2.75 |
| 237235CX | Freeplay | DPX351326 | 12 | 200 | 2.1mm x 5.5mm F 2 | 2.4 x 1.7 x 1.4 | Black | 6' | 0.4 | UL/CSA | 3.79 | 3.45 | 2.75 | 2.05 |
| 158043CX | Jameco | DC1202F12R | 12 | 200 | 2.1mm x 5.5mm right angle F 2 | 2.2 x 1.7 x 1.5 | Black | 6' | 0.4 | UL/CSA | 4.49 | 4.04 | 3.64 | 3.27 |
| 220433CX | Jameco | DBU120020 | 12 | 200 | 2.5mm x 5.5mm right angle F 2 | 2.2 x 1.7 x 1.5 | Lt. Gray | 6' | 0.4 | UL/CSA | 4.39 | 3.95 | 3.16 | 2.37 |
| 185658CX | — | DV1220DCB | 12 | 200 | 2.5mm x 5.5mm right angle F 2 | 2.2 x 1.7 x 1.5 | Black | 6' | 0.4 | UL/CSA | 4.79 | 4.31 | 3.86 | 2.94 |
| 211238CX | Quotrek | 35D-12-250 | 12 | 250 | 2.5mm right angle M 2 | 2.2 x 1.7 x 1.5 | Black | 6' | 0.4 | UL/CSA | 3.95 | 3.55 | 2.89 | 2.15 |
| 219601CX | Jameco | DCU120025 | 12 | 250 | Stripped & tinned | 2.5 x 2.0 x 1.7 | Dk. Gray | 6' | 0.4 | UL/CUL | 3.95 | 3.55 | 3.25 | 2.85 |
| 163491CX | — | AD1230 | 12 | 300 | Connector end may vary | 2.2 x 2.2 x 1.6 | Black | 6' | 0.5 | UL/CSA | 4.29 | 3.89 | 3.49 | 3.09 |
| 201099CX | — | SPN4230A | 12 | 300 | 1.3mm x 3.5mm right angle F 2 | 2.3 x 2.0 x 1.7 | Black | 6' | 0.5 | UL/CSA | 4.99 | 4.49 | 3.59 | 2.69 |
| 127976CX | Xircom | DC1203F12 | 12 | 300 | 2.1mm x 5.5mm F 2 | 2.6 x 1.8 x 1.6 | Black | 6' | 0.7 | UL/CSA | 4.75 | 4.29 | 3.85 | 3.25 |
| 249236CX | Horizon | DBU120030G8970 | 12 | 300 | 2.5mm x 5.5mm right angle F 2 | 2.2 x 1.7 x 1.5 | Black | 6' | 0.5 | UL/CUL | 4.85 | 3.85 | 3.39 | 3.09 |
| 190502CX | Lucent Tech. | DV1140DC | 12 | 400 | 2.1mm x 5.5mm right angle F 2 | 2.6 x 2.1 x 1.9 | Black | 6' | 0.5 | UL/CUL | 6.69 | 6.02 | 4.82 | 3.61 |
| 114825CX | Jameco | DC1205ST | 12 | 500 | Connector end may vary | 2.5 x 2.0 x 1.7 | Black | 6' | 0.6 | CUL | 4.75 | 4.35 | 3.45 | 2.59 |
| 15368CX | Jameco | DC1205F11 | 12 | 500 | 2.1mm x 5.5mm F 1 | 2.5 x 1.9 x 1.6 | Black | 6' | 0.6 | UL/CSA | 6.49 | 5.85 | 5.29 | 4.75 |
| 102496CX | ITE Power Supply | DC1205F12 | 12 | 500 | 2.1mm x 5.5mm F 2 | 2.5 x 1.9 x 1.6 | Black | 6' | 0.6 | UL/CSA | 4.49 | 4.49 | 3.59 | 2.65 |
| 131300CX | Jameco | SCP41 | 12 | 500 | 2.1mm x 5.5mm right angle F 2 | 2.6 x 1.9 x 1.7 | Beige | 6' | 0.6 | UL/CSA | 5.49 | 4.94 | 4.45 | 4.00 |
| 200125CX | Noostuff Inc. | DV1250 | 12 | 500 | 2.5mm x 5.5mm F 1 | 2.4 x 2.0 x 1.6 | Black | 6' | 1.0 | UL/CSA | 4.25 | 3.91 | 3.12 | 2.39 |
| 102277CX | Jameco | DC1205F5 | 12 | 500 | 2.5mm x 5.5mm F 2 | 2.5 x 2.1 x 1.7 | Black | 6' | 0.6 | UL/CSA | 5.19 | 4.67 | 4.20 | 3.78 |
| 17267CX | Jameco | DC1205M3 | 12 | 500 | 3.5mm M 2 | 2.5 x 1.9 x 1.6 | Black | 6' | 0.6 | UL/CSA | 5.19 | 4.67 | 4.20 | 3.78 |
| 202201CX | Jameco | DC1206F12 | 12 | 600 | 2.1mm x 5.5mm F 2 | 3.3 x 2.9 x 2.3 | Black | 6' | 0.6 | UL/CUL | 4.95 | 4.45 | 3.55 | 2.69 |
| 202219CX | Jameco | DC120F12 | 12 | 700 | 2.1mm x 5.5mm F 2 | 3.3 x 2.9 x 2.3 | Black | 6' | 0.6 | UL/CUL | 5.19 | 4.67 | 4.20 | 3.78 |
| 117479CX | Jameco | DC1208F1 | 12 | 800 | 2.1mm x 5.5mm F 2 | 3.0 x 2.3 x 2.0 | Black | 6' | 0.9 | UL/CSA | 6.95 | 6.29 | 5.65 | 5.09 |
| 129331CX | Jameco | 48-12-800 | 12 | 800 | 2.5mm x 5.5mm F 2 | 3.0 x 2.3 x 2.0 | Black | 6' | 0.9 | UL/CSA | 5.49 | 4.95 | 4.45 | 4.05 |
| 237358CX | QSE | P155-D150567 | 12 | 800 | 2.5mm x 5.5mm F 2 | 3.0 x 2.3 x 1.9 | Black | 6' | 0.9 | UL | 5.19 | 4.69 | 3.75 | 2.79 |
| 211051CX | Calrad† | DV-1280 Dual | 12 | 800 | 2.5mm x 5.5mm rt angle F 2 w/ input switch | 2.6 x 2.4 x 1.9 | Black | 6' | 0.9 | — | 5.39 | 4.85 | 3.95 | 2.95 |
| 121232CX | Jameco | DC1208M3 | 12 | 800 | 3.5mm M 2 | 2.6 x 2.4 x 2.0 | Black | 6' | 0.9 | UL/CSA | 6.19 | 5.57 | 5.01 | 4.51 |
| 100870CX | Jameco | DC1210F1 | 12 | 1000 | 2.1mm x 5.5mm F 2 | 3.1 x 2.4 x 2.0 | Black | 6' | 0.9 | UL/CSA | 8.19 | 7.37 | 6.63 | 5.97 |
| 240101CX | — | FW3288 | 12 | 1000 | 2.1mm x 5.5mm F 2 | 3.8 x 2.4 x 2.2 | Black | 6' | 1.0 | UL/CSA | 7.49 | 6.75 | 6.09 | 5.49 |

† 110/220VAC switchable

▲ Brand and Product Number may vary except for Mean Well, Pihong, GlobTek and Jameco

More AC-to-DC Wall Adapters listed on pages 149 - 151

AC-to-DC Unregulated Wall Adapters (Continued)



213559CX

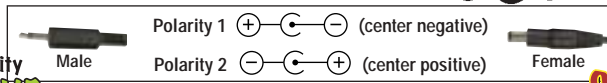


220901CX

We specialize in Wall Adapters – Call for additional OEM PRICING.
We will change any power plug (pg 83) on any DC wall adapter listed (100 pc. minimum).

• Input: 120VAC @ 60Hz

Quantity
SAVE



217541CX



123158CX

SALE

2-Wire AC Input – Unregulated

| Part Number | Brand▲ | Product Number▲ | Output Rating | | Output Connector ID x OD/Polarity F = female; M = male | Size (+0%-20%) H" x W" x D" | Case Color | Output Cord Length | Weight (lbs.) | Agency Approvals | Pricing | | | |
|-------------|--------------------|------------------|----------------------------|--------------|--|--------------------------------|------------|--------------------|---------------|------------------|---------|--------|--------|--------|
| | | | Voltage (VDC) | Current (mA) | | | | | | | 1 | 10 | 50 | 100 |
| 105478CX | Superworld | DC1210F5 | 12 | 1000 | 2.5mm x 5.5mm F 2 | 3.1 x 2.4 x 2.0 | Black | 6' | 1.0 | UL/CSA | \$7.49 | \$6.74 | \$6.07 | \$5.46 |
| 199566CX | Superworld | WK1201A01DN | 12 | 1000 | 2.5mm x 5.5mm F 2 (w/ RF filter) | 3.2 x 2.2 x 2.0 | Black | 6' | 1.2 | UL/CSA | 6.95 | 6.26 | 5.63 | 5.07 |
| 189579CX | Fellowes | BCU12100 | 12 | 1000 | 2.5mm x 5.5mm right angle F 2 | 3.2 x 2.2 x 1.9 | Black | 6' | 1.0 | UL/CSA | 7.95 | 7.19 | 5.75 | 4.35 |
| 15392CX | Jameco | DC1210M3 | 12 | 1000 | 3.5mm M 2 | 3.3 x 2.4 x 2.0 | Black | 6' | 1.0 | UL/CSA | 7.95 | 7.16 | 6.44 | 5.80 |
| 213559CX | — | GPC-081 | 12 | 1000 | Auto lighter power outlet | 4.3 x 2.2 x 1.9 | Black | — | 1.1 | UL/CUL | 13.95 | 12.56 | 11.30 | 10.17 |
| 196779CX | Jameco | D1212950 | 12 | 1200 | 2.5mm x 5.5mm F 2 | 3.0 x 2.3 x 1.9 | Black | 6' | 1.0 | UL/CUL | 8.79 | 7.91 | 7.12 | 6.41 |
| 189325CX | KCS Industries | 57D12-1500 | 12 | 1500 | Stripped and tinned (w/ on-off switch) | 3.4 x 2.6 x 2.2 | Black | 8' | 1.5 | UL | 11.19 | 10.07 | 8.99 | 6.74 |
| 203035CX | Brother | A41215 | 12 | 1500 | 2.1mm x 5.5mm F 1 | 3.6 x 2.5 x 1.9 | Black | 6' | 1.5 | UL/CSA | 12.95 | 11.69 | 9.35 | 6.99 |
| 136881CX | Leader Electronics | DC1215F1 | 12 | 1500 | 2.1mm x 5.5mm F 2 | 3.4 x 2.7 x 2.2 | Black | 6' | 1.5 | UL | 12.95 | 11.69 | 10.55 | 9.45 |
| 101291CX | KCS Industries | DC1215F5 | 12 | 1500 | 2.5mm x 5.5mm F 2 | 3.4 x 2.7 x 2.2 | Black | 6' | 1.5 | UL | 10.39 | 9.35 | 8.42 | 7.57 |
| 189211CX | ACI World | 57-12-1500D | 12 | 1500 | 8-pin mini DIN M | 3.4 x 2.6 x 2.2 | Black | 3'4" | 1.7 | UL/CUL | 4.95 | 4.49 | 3.59 | 2.69 |
| 210817CX | ORA Electronics | MK135100-1 | 13.5 | 1000 | 2.1mm x 5.5mm F 2 | 2.9 x 2.3 x 1.9 | Black | 6' | 1.0 | UL | 9.95 | 8.99 | 7.19 | 5.39 |
| 212812CX | Jameco | DC1402F12 | 14 | 200 | 2.1mm x 5.5mm F 2 | 2.2 x 1.7 x 1.5 | Black | 6' | 0.8 | UL/CUL | 3.05 | 2.79 | 2.55 | 2.29 |
| 212821CX | Jameco | DC1403F12 | 14 | 300 | 2.1mm x 5.5mm F 2 | 2.2 x 1.7 x 1.5 | Black | 6' | 0.8 | UL/CUL | 4.95 | 4.49 | 3.95 | 3.50 |
| 129314CX | — | DV-1250 | 14 | 360 | 2.5mm x 5.5mm right angle F 2 | 2.3 x 2.0 x 1.6 | Black | 6' | 0.6 | UL/CSA | 5.19 | 4.67 | 3.74 | 2.89 |
| 212839CX | Jameco | DC1405F12 | 14 | 500 | 2.1mm x 5.5mm F 2 | 2.2 x 1.7 x 1.5 | Black | 6' | 0.8 | UL/CUL | 3.72 | 3.39 | 3.08 | 2.80 |
| 123932CX | Jameco | DC1407F1 | 14 | 700 | 2.1mm x 5.5mm F 2 | 2.6 x 2.4 x 2.0 | Black | 6' | 1.0 | UL/CSA | 8.49 | 7.65 | 6.89 | 6.19 |
| 202243CX | Everglow | DC1407F52 | 14 | 700 | 2.5mm x 5.5mm F 2 | 3.9 x 2.9 x 2.4 | Black | 6' | 0.8 | UL/CUL | 7.25 | 6.55 | 5.89 | 5.29 |
| 202260CX | Jameco | DC1410F12 | 14 | 1000 | 2.1mm x 5.5mm F 2 | 3.9 x 2.9 x 2.4 | Black | 6' | 0.9 | UL/CUL | 7.95 | 6.95 | 6.25 | 5.59 |
| 190001CX | Jameco | DC1505F1 | 15 | 500 | 2.1mm x 5.5mm F 2 | 2.3 x 2.4 x 1.9 | Black | 6' | 0.8 | UL/CSA | 6.49 | 5.84 | 5.26 | 4.73 |
| 189982CX | Jameco | DC1505F5 | 15 | 500 | 2.5mm x 5.5mm F 2 | 2.3 x 2.4 x 1.9 | Black | 6' | 0.8 | UL/CSA | 6.95 | 6.29 | 5.05 | 3.79 |
| 155803CX | Jameco | DC1506F11 | 15 | 600 | 2.1mm x 5.5mm F 1 | 2.9 x 2.3 x 1.9 | Black | 6' | 1.0 | UL/CSA | 8.95 | 8.06 | 6.44 | 4.83 |
| 232258CX | Horizon | DDU150080 | 15 | 800 | 2.1mm x 5.5mm F 1 | 2.9 x 2.3 x 1.9 | Black | 6' | 1.0 | UL | 9.49 | 8.55 | 7.69 | 6.95 |
| 203502CX | Jameco | 48150900 | 15 | 900 | 2.5mm x 5.5mm F 1 | 2.6 x 2.2 x 1.9 | Black | 6' | 1.0 | UL/CSA | 6.95 | 6.25 | 5.49 | 4.75 |
| 151992CX | Jameco | AD-SS-2 | 15 | 1000 | 2.1mm x 5.5mm F 2 | 3.1 x 2.0 x 1.9 | Beige | 6' | 1.5 | UL/CSA | 8.99 | 8.09 | 6.47 | 4.85 |
| 191652CX | Jameco | DC1510F12 | 15 | 1000 | 2.1mm x 5.5mm F 2 | 3.3 x 2.2 x 1.9 | Black | 6' | 1.0 | UL/CSA | 9.59 | 8.65 | 7.79 | 6.99 |
| 220901CX | Drake | 3690454 | 16 | 250 | Stripped & tinned | 2.2 x 2.1 x 1.6 | Black | 6' | 0.8 | UL/CSA | 5.95 | 5.35 | 4.29 | 3.19 |
| 162317CX | Jameco | DC1605F1 | 16 | 500 | 2.1mm x 5.5mm F 2 | 2.2 x 2.4 x 1.9 | Black | 6' | 0.8 | UL/CSA | 7.95 | 6.95 | 6.25 | 5.59 |
| 217541CX | NiteRider | FE4116168C030 | 16.8 | 300 | 2.5mm x 5.5mm F 2 w/ LED indicator | 3.1 x 2.1 x 1.6 | Black | 6' | 0.6 | UL/CUL | 5.95 | 5.35 | 4.29 | 3.19 |
| 181729CX | Jameco | CXV18250 | 18 | 250 | 2.1mm x 5.5mm F 2 | 2.6 x 2.0 x 1.6 | Black | 6' | 0.6 | UL | 6.95 | 6.29 | 5.65 | 5.09 |
| 217568CX | NiteRider | FE4126180P040 | 18 | 400 | 2.5mm x 5.5mm F 2 w/ LED indicator | 3.5 x 2.1 x 1.6 | Black | 6' | 0.8 | UL/CUL | 6.49 | 5.84 | 5.24 | 3.69 |
| 163272CX | Jameco | 48-18-500D | 18 | 500 | 2.1mm x 5.5mm F 2 | 2.6 x 2.3 x 1.9 | Black | 6' | 0.8 | UL/CUL | 9.95 | 8.99 | 8.09 | 7.25 |
| 206957CX | Globtek | WD1H1000LCX | 18 | 1000 | 2.5mm x 5.5mm F 2 | 3.4 x 2.6 x 2.1 | Black | 6' | 1.4 | — | 9.95 | 8.99 | 7.19 | 5.39 |
| 236443CX | — | FE4823240D030 | 24 | 300 | 2.5mm x 5.5mm F 2 | 3.5 x 2.4 x 1.9 | Black | 12' | 1.2 | UL/CUL | 7.49 | 6.75 | 6.09 | 5.45 |
| 102285CX | Jameco | DC2404F1 | 24 | 400 | 2.1mm x 5.5mm F 2 | 3.0 x 2.3 x 2.0 | Black | 6' | 0.9 | UL/CUL | 7.95 | 7.19 | 6.45 | 5.85 |
| 163635CX | Jameco | DC2405F11 | 24 | 500 | 2.1mm x 5.5mm F 1 | 3.1 x 2.3 x 1.9 | Black | 6' | 1.0 | UL/CUL | 8.95 | 8.09 | 7.25 | 6.55 |
| 191556CX | Jameco | DC2405F5 | 24 | 500 | 2.5mm x 5.5mm F 2 | 3.1 x 2.3 x 1.9 | Black | 6' | 1.0 | UL/CUL | 8.95 | 8.06 | 6.44 | 4.83 |
| 139088CX | Jameco | DC2405M3 | 24 | 500 | 3.5mm M 2 | 3.1 x 2.3 x 1.9 | Black | 6' | 1.0 | UL/CUL | 7.95 | 7.19 | 6.45 | 5.35 |
| 196322CX | 3Com | P48240600A020G | 24 | 600 | 2.1mm x 5.5mm F 2 | 3.3 x 2.3 x 1.9 | Black | 6' | 1.1 | UL/CSA | 8.95 | 8.05 | 6.95 | 6.49 |
| 168495CX | Jameco | DC2408F1 | 24 | 800 | 2.1mm x 5.5mm F 2 | 2.9 x 1.9 x 1.6 | Black | 6' | 0.4 | UL/CUL/TVV | 10.95 | 9.89 | 8.89 | 7.99 |
| 220960CX | Jameco | DFU240100 | 24 | 1000 | 2.1mm x 5.5mm F 1 | 3.4 x 2.7 x 2.2 | Black | 6' | 1.6 | UL/CUL | 13.89 | 12.95 | 11.39 | 10.89 |
| 163651CX | Jameco | DC2412F11 | 24 | 1200 | 2.1mm x 5.5mm F 1 | 3.8 x 3.0 x 2.6 | Black | 6' | 2.0 | — | 14.95 | 13.49 | 10.79 | 8.09 |
| 249130CX | Horizon | DFU240120/G8530 | 24 | 1200 | 2.1mm x 5.5mm F 1 | 3.4 x 2.7 x 2.2 | Black | 6' | 1.7 | UL/CUL | 15.95 | 14.85 | 13.09 | 12.49 |
| 249121CX | Horizon | DFU240120/G8520 | 24 | 1200 | 2.1mm x 5.5mm F 2 | 3.4 x 2.7 x 2.2 | Black | 6' | 1.7 | UL/CUL | 15.95 | 14.85 | 13.09 | 12.49 |
| 249113CX | Horizon | DFU240120/G8510 | 24 | 1200 | 2.5mm x 5.5mm F 2 | 3.4 x 2.7 x 2.2 | Black | 6' | 1.7 | UL/CUL | 15.95 | 14.85 | 13.09 | 12.49 |
| 121241CX | Jameco | DC2412M3 | 24 | 1200 | 3.5mm M 2 | 3.4 x 2.7 x 2.2 | Black | 6' | 2.0 | — | 12.95 | 11.49 | 9.95 | 8.95 |
| 199523CX | Jameco | DDU300050 | 30 | 500 | 2.5mm x 5.5mm F 2 | 2.9 x 2.3 x 1.9 | Black | 6' | 1.1 | UL/CUL | 9.95 | 8.95 | 7.19 | 5.39 |
| 215095CX | — | MW48-4800250 | 48 | 250 | 2.5mm x 5.5mm F 2 | 2.9 x 2.3 x 1.9 | Black | 6' | 1.1 | UL/CUL | 7.95 | 7.15 | 6.49 | 5.79 |
| 230631CX | — | MW48-4800250-2.1 | 48 | 250 | 2.1mm x 5.5mm F 2 | 3.3 x 2.7 x 2.2 | Black | 6' | 1.1 | UL/CUL | 8.95 | 8.09 | 7.25 | 6.55 |
| 215108CX | — | MW48-4800500 | 48 | 500 | 2.5mm x 5.5mm F 2 | 2.9 x 2.3 x 1.9 | Black | 6' | 1.1 | UL/CUL | 10.95 | 9.85 | 8.85 | 7.95 |
| 230640CX | — | MW48-480500-2.1 | 48 | 500 | 2.1mm x 5.5mm F 2 | 3.3 x 2.7 x 2.2 | Black | 6' | 1.1 | UL/CUL | 11.95 | 10.75 | 9.69 | 8.95 |
| 15309CX | Mean Well | DCM05 | 3, 4.5, 6, 7.5, 9, 12 | 500 | 1.35 x 3.5, 2.1 x 5.0, 2.5 x 5.5 female 2.5, 3.5 male, 9V battery snap (LED ind.) | 3.0 x 2.2 x 2.1 | Black | 6' | 0.7 | UL/CSA | 9.49 | 8.54 | 7.69 | 6.92 |
| 190641CX | — | DCM08 | 3, 4.5, 6, 7.5, 9, 12 | 800 | 1.5 x 5.5, 2.1 x 5.0, 2.1 x 5.5, 2.5 x 5.5 female 2.5, 3.5 male, polarity sw. (LED ind.) | 3.9 x 2.7 x 2.3 | Black | 6' | 0.9 | UL/CSA | 7.95 | 7.19 | 5.75 | 4.29 |
| 123158CX | ProAm | DCM10 † | 1.5, 3, 4.5, 6, 7.5, 9, 12 | 1000 | 1.35 x 3.5, 2.1 x 5.0, 2.5 x 5.5 female 2.5, 3.5 male, 9V battery snap (LED ind.) | 3.7 x 2.2 x 2.5 | Black | 6' | 0.9 | — | 10.95 | 9.86 | 8.87 | 7.98 |

† 120 to 220VAC

▲ Brand and Product Number may vary except for Mean Well, Pihong, GlobTek and Jameco

AC-to-AC Wall Adapters

Color Code Legend
New Sale Qty. Save Closeout

We specialize in Wall Adapters – Call for additional OEM PRICING.

We will change any power plug (pg 83) on any wall adapter listed (100 pc. minimum).



233293CX



236814CX



Female

Screw Terminals



Male

Stripped

Quantity
SAVE



206421CX



240119CX

SALE

• Input: 120VAC @ 60Hz



2-Wire AC Input

| Part Number | Brand▲ | Product Number▲ | Output Rating | | Output Connector ID x OD Plug Type F = female; M = male | Size H" x W" x D" | Case Color | Output Cord Length | Weight (lbs.) | Agency Approvals | Pricing | | | |
|-------------|--------------------|------------------|---------------|--------------|---|----------------------|------------|--------------------|---------------|------------------|---------|--------|--------|--------|
| | | | Voltage (VAC) | Current (mA) | | | | | | | 1 | 10 | 50 | 100 |
| 101127CX | Siemens | DFX10096B | 7 | 1500 | 2.5mm x 5.5mm F | 1.9 x 2.2 x 2.0 | Black | 7'6" | 0.8 | UL/CSA | \$4.95 | \$4.49 | \$3.95 | \$3.49 |
| 249017CX | Horizon | ACU070150G7230 | 7 | 1500 | 2.5mm x 5.5mm F | 2.5 x 2.0 x 1.7 | Black | 6' | 0.5 | UL/CSA | 5.19 | 4.69 | 4.29 | 3.59 |
| 219660CX | Sincore | SLA40810 | 8 | 1000 | 2.1mm x 5.5mm F | 2.2 x 2.1 x 1.6 | Black | 6' | 0.7 | UL/CSA | 4.79 | 4.31 | 3.45 | 2.59 |
| 219619CX | Jameco | ABU09005 | 9 | 50 | 2.1mm x 5.5mm F | 2.2 x 1.8 x 1.5 | Black | 6' | 0.3 | UL/CSA | 2.42 | 2.20 | 2.00 | 1.82 |
| 210729CX | ITE Power Supply | MKA35090300 | 9 | 300 | 2.1mm x 5.5mm F | 2.2 x 1.7 x 1.5 | Black | 6' | 0.4 | UL/CUL | 3.95 | 3.55 | 2.95 | 2.49 |
| 184751CX | PhoneMate | M/N40 | 9 | 450 | 2.1mm x 5.5mm right angle F | 2.8 x 2.0 x 1.7 | Black | 6' | 0.8 | UL/CSA | 4.59 | 4.13 | 3.30 | 2.48 |
| 100061CX | Jameco | AC905F1 | 9 | 500 | 2.1mm x 5.5mm F | 2.4 x 2.0 x 1.6 | Black | 6' | 0.6 | UL/CUL | 4.59 | 4.13 | 3.30 | 2.48 |
| 226131CX | US Robotics | AA0950 | 9 | 500 | 2.5mm x 5.5mm F | 2.5 x 2.1 x 1.7 | Black | 6' | 0.5 | UL/CSA | 4.49 | 3.99 | 3.65 | 3.29 |
| 249295CX | Pacrim | 41A-9-700 | 9 | 700 | 2.5mm x 5.5mm F | 2.3 x 2.0 x 1.7 | Black | 6' | 0.6 | UL/CSA | 4.49 | 3.99 | 3.65 | 3.29 |
| 233293CX | Horizon | ACU090080 | 9 | 800 | 2.1mm x 5.5mm F | 2.5 x 2.0 x 1.7 | Black | 6' | 0.6 | UL | 4.69 | 4.25 | 3.39 | 2.55 |
| 236814CX | Jameco | ACU90080 | 9 | 800 | 3.5mm M | 2.5 x 2.0 x 1.7 | Black | 6' | 0.5 | UL/CUL | 4.95 | 4.49 | 4.05 | 3.65 |
| 102234CX | Everglow | AC910F1 | 9 | 1000 | 2.1mm x 5.5mm F | 3.2 x 2.2 x 1.9 | Black | 6' | 0.6 | UL/CSA | 5.49 | 4.94 | 4.45 | 4.00 |
| 157041CX | Jameco | 41A9-1000 | 9 | 1000 | 2.5mm x 5.5mm F | 2.1 x 2.1 x 1.6 | Black | 6' | 0.6 | UL/CSA | 6.95 | 6.29 | 5.65 | 5.09 |
| 112336CX | Jameco | AC915F5 | 9 | 1500 | 2.5mm x 5.5mm F | 2.5 x 2.2 x 2.0 | Black | 6' | 0.9 | UL | 9.95 | 7.99 | 5.99 | 4.19 |
| 217550CX | Frino | FW6798 | 9 | 1900 | Stripped and tinned | 2.8 x 2.5 x 2.0 | Black | 6'8" | 1.1 | UL/CSA | 8.49 | 7.64 | 6.88 | 6.19 |
| 210745CX | Leader Electronics | A4110050T | 10 | 500 | 2.1mm x 5.5mm F | 3.0 x 2.1 x 1.7 | Black | 6' | 0.6 | UL/CSA | 2.65 | 2.39 | 2.19 | 1.99 |
| 265455CX | — | FW6199 | 12 | 200 | 2.1mm x 5.5mm F | 2.1 x 1.9 x 1.9 | Black | 6'7" | 0.5 | UL | 3.09 | 2.79 | 2.49 | 2.25 |
| 101258CX | Jameco | 41A12-500 | 12 | 500 | 2.1mm x 5.5mm F | 2.8 x 2.0 x 1.6 | Black | 6' | 0.6 | UL/CSA | 4.59 | 4.15 | 3.65 | 3.29 |
| 211271CX | Orig. Elec. Mfg. | AA-1250 | 12 | 500 | 2.5mm x 5.5mm F | 2.3 x 2.1 x 1.6 | Black | 6' | 0.6 | UL/CSA | 4.59 | 4.15 | 3.65 | 3.29 |
| 285069CX | Shogyo | DV-1283 | 12 | 830 | 2.5mm x 5.5mm F | 2.8 x 2.0 x 1.6 | Black | 6' | 0.6 | UL/CSA | 4.95 | 4.55 | 4.13 | 4.13 |
| 10081CX | Leader Electronics | AC1210F1 | 12 | 1000 | 2.1mm x 5.5mm F | 2.6 x 2.4 x 2.0 | Black | 6' | 0.7 | UL/CSA | 5.19 | 4.67 | 4.20 | 3.78 |
| 100167CX | Jameco | AC1210F5 | 12 | 1000 | 2.5mm x 5.5mm F | 3.2 x 2.4 x 2.0 | Black | 6' | 0.7 | UL/CSA | 5.19 | 4.67 | 4.20 | 3.78 |
| 10428CX | Jameco | AC1210M3 | 12 | 1000 | 3.5mm M | 2.6 x 2.4 x 2.0 | Black | 6' | 0.6 | UL/CUL | 5.19 | 4.67 | 4.20 | 3.78 |
| 167151CX | ITE Power Supply | HET57116 | 12 | 1500 | 2.1mm x 5.5mm F | 3.4 x 2.7 x 2.2 | Black | 6' | 1.5 | — | 4.95 | 4.49 | 3.99 | 3.35 |
| 206607CX | Ault | T48-121667-A030C | 12 | 1600 | 2.5mm x 5.5mm F | 2.5 x 2.2 x 2.0 | Black | 6' | 0.9 | UL/CUL | 9.95 | 8.99 | 7.19 | 5.39 |
| 153761CX | Jameco | AC1216M3 | 12 | 1600 | 3.5mm M | 2.5 x 2.2 x 1.9 | Black | 6' | 0.9 | UL | 10.95 | 9.89 | 8.89 | 7.99 |
| 206404CX | MG Electronics | MGT1220 | 12 | 1670 | Screw terminals | 3.2 x 2.2 x 1.9 | White | — | 0.9 | UL/CSA | 6.95 | 6.29 | 5.65 | 5.09 |
| 210737CX | ITE Power Supply | PPI-1212UL | 13 | 1200 | 2.1mm x 5.5mm F | 3.3 x 2.4 x 2.0 | Black | 6' | 0.9 | UL/CUL | 4.95 | 4.49 | 3.59 | 2.69 |
| 171408CX | — | AC1405F1 | 14 | 500 | 2.1mm x 5.5mm F | 2.8 x 2.0 x 1.6 | Black | 6' | 0.6 | UL/CSA | 4.49 | 4.04 | 3.64 | 3.27 |
| 171854CX | Racal | DV1485AC | 14 | 850 | 2.5mm x 5.5mm right angle F | 3.0 x 2.0 x 1.7 | Black | 6' | 0.7 | UL/CUL | 6.95 | 6.26 | 5.00 | 3.75 |
| 201101CX | Motorola | SPN4340A | 15 | 200 | 1.3mm x 3.5mm F | 2.2 x 1.8 x 1.5 | Black | 6' | 0.5 | UL/CSA | 1.69 | 1.55 | 1.39 | 1.29 |
| 100108CX | Jameco | AC1610F1 | 16 | 1000 | 2.1mm x 5.5mm F | 2.5 x 2.2 x 1.9 | Black | 6' | 0.9 | UL/CSA | 7.95 | 7.19 | 6.45 | 5.85 |
| 163053CX | Jameco | 035-0165 | 16 | 1100 | 2.5mm x 5.5mm F | 3.2 x 2.3 x 1.8 | Black | 6' | 1.1 | UL/CSA | 8.95 | 7.99 | 7.25 | 6.55 |
| 227791CX | Ault | T41180500A0206 | 18 | 500 | 2.1mm x 5.5mm F | 2.6 x 1.9 x 1.7 | Black | 6' | 1.1 | CSA | 7.95 | 7.15 | 5.75 | 4.29 |
| 121216CX | Jameco | AC1810F1 | 18 | 1000 | 2.1mm x 5.5mm F | 3.1 x 2.7 x 1.9 | Black | 6' | 1.1 | UL/CUL | 8.95 | 8.09 | 6.49 | 4.89 |
| 185439CX | Ault | T5182200-A020G | 18 | 1850 | 2.1mm x 5.5mm right angle F | 3.3 x 2.7 x 2.2 | Black | 6' | 1.7 | UL/CSA | 7.49 | 6.74 | 5.39 | 4.04 |
| 206421CX | MG Electronics | MGT2410 | 24 | 420 | Screw terminals | 2.5 x 2.0 x 1.7 | White | — | 0.6 | UL/CSA | 8.49 | 7.65 | 6.89 | 6.19 |
| 87581CX | Jameco | AC2405F1 | 24 | 500 | 2.1mm x 5.5mm F | 2.5 x 2.2 x 1.9 | Black | 6' | 0.9 | UL/CSA | 5.19 | 4.67 | 4.20 | 3.78 |
| 240119CX | — | FW6798 | 24 | 500 | 2.5mm x 5.5mm F | 2.8 x 2.5 x 2.2 | Black | 6'8" | 0.8 | UL/CSA | 4.95 | 4.49 | 3.99 | 3.65 |
| 206439CX | MG Electronics | MGT2420 | 24 | 830 | Screw terminals | 3.2 x 2.2 x 1.9 | White | — | 0.9 | UL/CSA | 7.19 | 6.49 | 5.85 | 5.25 |
| 140599CX | Jameco | AC2410F1 | 24 | 1000 | 2.1mm x 5.5mm F | 3.0 x 2.2 x 1.9 | Black | 6' | 1.2 | UL/CSA | 8.95 | 8.09 | 6.49 | 4.89 |
| 10102CX | Jameco | AC2410M3 | 24 | 1000 | 3.5mm M | 3.0 x 2.2 x 1.9 | Black | 6' | 1.2 | UL/CSA | 7.95 | 7.19 | 6.45 | 5.85 |
| 176356CX | Jameco | WP573024 | 24 | 1250 | 2.1mm x 5.5mm F | 3.4 x 2.7 x 2.2 | Black | 5'8" | 1.6 | UL/CSA | 10.49 | 9.45 | 7.55 | 5.65 |

▲ Brand and Product Number may vary except for Mean Well, Pihong and Jameco

Wall Adapter Enclosures

- Enclosures include 3-prong power plug and cable strain relief
- Size: 3.4"H x 2.7"W x 2.3"D
- Material: noryl
- Color: black



115051CX

- Input voltage: 120VAC @ 60Hz
- Output volts: 16VAC
- Output current: 4.0A
- Output watts: 64W
- Output plug: 2.1mm (ID) x 5.5mm (OD) female
- Attached AC cord
- Agency approvals: CSA
- Size: 3.7"L x 2.9"W x 2.5"H
- Cord (AC/AC): 6'/6'
- Color: black
- Weight: 2.8 lbs.



| Part No. | Style | 1 | 10 | 100 |
|----------|------------|--------|--------|--------|
| 115051CX | Non-vented | \$2.25 | \$1.95 | \$1.69 |
| 115043CX | Vented | 2.25 | 1.95 | 1.69 |

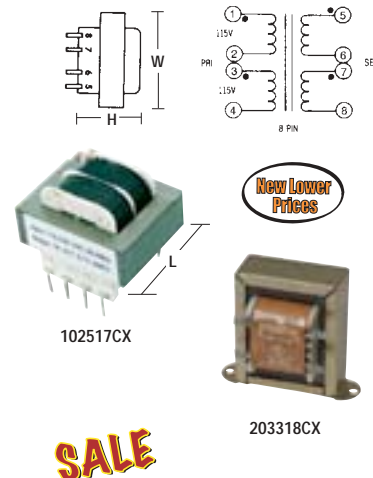
| Part No. | Manufacturer | Product Number | 1 | 10 | 50 |
|----------|--------------|----------------|---------|---------|---------|
| 176604CX | Jameco | TA661640 | \$12.95 | \$11.65 | \$10.49 |

Split-Bobbin Power Transformers

Non-concentrically wound with primaries and secondaries side-by-side providing low capacitive coupling.

- Primary: 115/230VAC, 50-60Hz
- PC terminal pin spacing for accurate placement

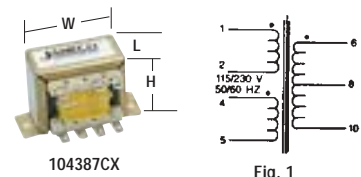
| Part Number | Mfr. Cross Ref. No. | Triad Cross | Input Voltage | VA Cap | Individual Output | Parallel Output | Series Output | Dimensions | | | Wt. (lbs.) | Pricing | | |
|-------------|---------------------|-------------|---------------|--------|-------------------|-----------------|----------------|------------|------|------|------------|---------|--------|--------|
| | | | | | | | | L" | W" | H" | | 1 | 10 | 100 |
| 221292CX | DSW-312 | FS12200 | 115/230 | 2.5 | 6.3V @ .20A | 6.3V @ .40A | 12.6VCT @ .20A | 1.38 | 1.13 | 1.19 | 0.3 | \$5.65 | \$5.45 | \$4.65 |
| 102533CX | XFR1205SB | FS12500 | 115/230 | 6.3 | 6.3V @ .50A | 6.3V @ 1.0A | 12.6VCT @ .50A | 1.31 | 1.62 | 1.30 | 0.4 | 7.29 | 6.49 | 5.75 |
| 102517CX | XFR1602SB | FS16150 | 115/230 | 2.4 | 8V @ .15A | 8V @ .30A | 16VCT @ .15A | 1.17 | 1.38 | 1.20 | 0.3 | 5.65 | 5.45 | 4.65 |
| 221284CX | DSW-316 | FS16150 | 115/230 | 2.5 | 8V @ .15A | 8V @ .30A | 16VCT @ .15A | 1.38 | 1.13 | 1.19 | 0.3 | 5.65 | 3.99 | 3.61 |
| 210921CX | 14A-10-ZOB21 | — | 115/230 | 10.0 | 10V @ .05A | 10V @ 1.0A | 20VCT @ 0.5A | 1.88 | 1.56 | 1.38 | 0.5 | 7.49 | 6.75 | 6.09 |
| 210948CX | DPC20-60B13 | — | 115/230 | 1.2 | 10V @ .06A | 10V @ .12A | 20VCT @ .06A | 1.63 | 1.25 | 1.38 | 0.2 | 3.86 | 3.51 | 3.19 |
| 210956CX | DST2-24-845 | — | 115/230 | 1.1 | 12V @ .045A | 12V @ .09A | 24VCT @ .045A | 1.13 | 1.13 | 0.94 | 0.2 | 6.49 | 5.85 | 5.25 |
| 221305CX | DSW-324 | FS24100 | 115/230 | 2.5 | 12V @ .10A | 12V @ .20A | 24VCT @ .10A | 1.38 | 1.13 | 1.19 | 0.3 | 5.65 | 3.99 | 3.61 |
| 176090CX | SPT41240-120 | FS24250 | 115/230 | 6.0 | 12V @ .25A | 12V @ .50A | 24VCT @ .25A | 1.33 | 1.63 | 1.59 | 0.5 | 6.95 | 6.25 | 5.59 |
| 102592CX | XFR2405SB | FS24500 | 115/230 | 12.0 | 12V @ .50A | 12V @ 1.0A | 24VCT @ .50A | 1.58 | 1.90 | 1.46 | 0.7 | 8.79 | 7.95 | 5.49 |
| 249412CX | DST-5-16 | — | 115/230 | 12.8 | 8V @ .80A | 8V @ 1.6A | 16VCT @ .80A | 1.57 | 1.88 | 1.42 | 0.6 | 8.95 | 8.09 | 7.25 |
| 210930CX | PC34-35-B21 | — | 115 | 1.2 | 17V @ .035A | 17V @ .07A | 34VCT @ .035A | 1.38 | 1.13 | 1.19 | 0.2 | 4.34 | 3.95 | 3.59 |
| 210964CX | LP40-300-B14 | — | 115/230 | 12.0 | 20V @ .30A | 20V @ 0.6A | 40VCT @ 0.3A | 2.50 | 2.00 | 1.07 | 0.7 | 5.83 | 5.30 | 4.82 |
| 209015CX | ST-6-48 | — | 115 | 19.2 | 24V @ .40A | 24V @ .80A | 48VCT @ .40A | 1.88 | 2.25 | 1.40 | 0.8 | 7.95 | 6.76 | 5.07 |
| 203318CX | P8616 | — | 115/230 | 24.0 | 24V @ .50A | 24V @ 1.0A | 48VCT @ .50A | 1.96 | 2.25 | 2.70 | 1.5 | 3.89 | 3.54 | 3.22 |



Quick-Connect Power Transformers

- Quick-connect transformers are bobbin wound for smaller size and reduced electrostatic shielding requirements
- Terminals: quick connect, solder
- Input voltage: 115/230VAC, 50-60Hz

| Part Number | Mfr. Cross Ref. No. | Triad Cross | Fig. | Input Voltage | Output Voltage | VA Cap | Size of Connect | Dimensions | | | Wt. (lbs.) | Pricing | | |
|-------------|---------------------|-------------|------|---------------|----------------|--------|-----------------|------------|------|------|------------|---------|--------|--------|
| | | | | | | | | L" | W" | H" | | 1 | 10 | 100 |
| 104387CX | XFR1225Q | FD612 | 1 | 115/230VAC | 12.6VCT @ 2.5A | 31.5 | 0.187" | 1.75 | 2.33 | 2.00 | 1.3 | \$9.29 | \$8.65 | \$7.05 |
| 104408CX | XFR1635Q | FD716 | 1 | 115/230VAC | 16VCT @ 3.5A | 56.0 | 0.187" | 2.00 | 2.70 | 2.30 | 1.8 | 12.95 | 11.69 | 10.49 |
| 101864CX | XFR2424Q | FD724 | 1 | 115/230VAC | 24VCT @ 2.4A | 57.6 | 0.187" | 2.40 | 2.70 | 2.25 | 1.7 | 11.95 | 10.79 | 9.69 |
| 104416CX | XFR3615Q | FD736 | 1 | 115/230VAC | 36VCT @ 1.5A | 54.0 | 0.187" | 1.90 | 2.70 | 2.30 | 1.8 | 9.95 | 8.99 | 8.09 |



115VAC and 115/230VAC Power Transformers

Power transformers have both single and dual-voltage input and center-tapped outputs. This makes them the perfect choice for power supply design or for use in transformer, rectifier and filter circuits.

- Primary: 115VAC or 115/230VAC, 50-60Hz

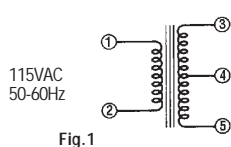


Fig. 1

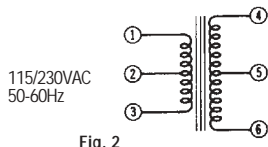


Fig. 2

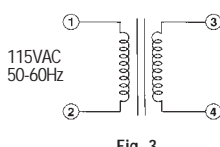
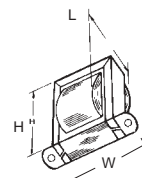


Fig. 3



29225CX

| Part Number | Mfr. Cross Ref. No. | Triad Cross | Primary | | | VA Cap | Secondary | | | Lead Type | Fig. | Dimensions | | | Wt. (lbs.) | Pricing | | | |
|-------------|---------------------|-------------|------------|---------|--------|--------|---------------|--------|------------|-----------|------|------------|------|------|------------|---------|--------|--------|--------|
| | | | Color Code | | | | Voltage | | Color Code | | | L" | W" | H" | | 1 | 10 | 100 | |
| 102162CX | XFR6102 | F314X | Black | Yellow* | Red | 7.6 | 6.3VCT @ 1.2A | White | Black* | White | Wire | 2 | 1.56 | 1.96 | 1.67 | 0.8 | \$8.49 | \$7.65 | \$6.89 |
| 105523CX | XFR0910 | — | Black | White* | Red | 9.0 | 9VCT @ 1A | Blue | Black* | Blue | Wire | 2 | 1.79 | 1.96 | 1.66 | 0.7 | 6.95 | 6.25 | 5.59 |
| 221401CX | P-8391 | F216X | Black | — | Black | 4.2 | 12VAC @ 0.35A | White | — | White | Wire | 3 | 1.38 | 2.38 | 1.38 | 0.4 | 5.95 | 4.95 | 4.01 |
| 221399CX | P-8657 | F218X | Black | — | Black | 24.0 | 12VAC @ 2A | White | — | White | Wire | 3 | 2.13 | 3.25 | 2.00 | 1.3 | 9.15 | 8.49 | 7.15 |
| 221356CX | P-8658 | F219X | Black | — | Black | 48.0 | 12VAC @ 4A | White | — | White | Wire | 3 | 2.25 | 4.00 | 2.63 | 2.3 | 12.95 | 11.95 | 9.95 |
| 29225CX | XFR122 | F44X | Yellow | — | Yellow | 25.2 | 12.6VCT @ 2A | Blue | Red* | Black | Wire | 1 | 2.12 | 2.33 | 1.96 | 1.5 | 9.95 | 8.99 | 8.09 |
| 102154CX | XFR1220 | F344X | Black | Yellow* | Red | 25.2 | 12.6VCT @ 2A | White | Black* | White | Wire | 2 | 2.35 | 2.32 | 1.97 | 1.5 | 10.95 | 9.39 | 6.99 |
| 149770CX | XFR1240 | F3181U | Black | Red* | Yellow | 50.4 | 12.6VCT @ 4A | White | Black* | White | Wire | 2 | 2.45 | 2.70 | 2.24 | 2.2 | 12.95 | 11.69 | 10.49 |
| 102120CX | XFR124 | F181U | Black | — | Black | 50.4 | 12.6VCT @ 4A | White | Black* | White | Wire | 1 | 2.53 | 3.08 | 2.61 | 2.7 | 12.95 | 11.69 | 10.49 |
| 105531CX | XFR1810 | — | Blue | Red* | Black | 18.0 | 18VCT @ 1A | Yellow | Black* | Yellow | Wire | 2 | 2.32 | 2.05 | 1.90 | 1.2 | 6.95 | 4.55 | 3.55 |
| 149956CX | XFR1820 | — | Black | Red* | Yellow | 36.0 | 18VCT @ 2A | White | Black* | White | Wire | 2 | 2.26 | 2.66 | 2.28 | 1.8 | 8.95 | 7.95 | 6.95 |
| 221381CX | P8396 | — | Black | — | Black | 9.6 | 24VCT @ 0.4A | White | Black* | White | Wire | 1 | 1.63 | 2.8 | 1.5 | 0.6 | 7.25 | 6.69 | 5.59 |
| 102111CX | XFR2410 | F346X | Black | Yellow* | Red | 24.0 | 24VCT @ 1A | White | Black* | White | Wire | 2 | 2.22 | 2.33 | 1.97 | 1.5 | 8.95 | 8.09 | 7.25 |
| 221372CX | P-8662 | F192X | Black | — | Black | 48.0 | 24VCT @ 2A | White | Black* | White | Wire | 1 | 2.38 | 4.00 | 2.62 | 2.3 | 11.95 | 10.95 | 9.19 |
| 112512CX | XFR242N | F229X | Black | — | Black | 48.0 | 24VAC @ 2A | White | — | White | Wire | 3 | 2.21 | 3.58 | 2.25 | 1.8 | 9.79 | 8.85 | 7.95 |
| 221364CX | P-8663† | F193U | — | — | — | 96.0 | 24VCT @ 4A | — | — | — | Lug | 1 | 2.81 | 3.13 | 3.81 | 4.0 | 18.95 | 17.85 | 14.95 |
| 221410CX | P-8666† | F226U | — | — | — | 288.0 | 24VCT @ 12A | — | — | — | Lug | 1 | 4.63 | 3.75 | 4.63 | 11.2 | 38.95 | 35.06 | 31.55 |
| 99653CX | XFR242 | — | Red | — | Red | 49.2 | 24.6VCT @ 2A | Blue | Yellow* | Blue | Wire | 1 | 2.44 | 2.70 | 2.30 | 2.5 | 10.95 | 9.89 | 8.89 |
| 102103CX | XFR2520 | F341X | Black | White* | Red | 50.4 | 25.2VCT @ 2A | Orange | Black* | Orange | Wire | 2 | 2.45 | 2.67 | 2.26 | 2.8 | 14.95 | 13.49 | 12.15 |
| 149796CX | XFR2820 | F3185U | Black | Red* | Yellow | 56.0 | 28VCT @ 2A | White | Black* | White | Wire | 2 | 2.45 | 2.70 | 2.24 | 2.3 | 12.95 | 11.69 | 8.59 |

* Center tap

† Solder terminals

6VAC/9VAC Dual Output Power Transformer

12VA

- Input voltage: 120VAC
- Output voltage: 6VAC @ 500mA center tap (blue wires); 9VAC @ 1A center tap (yellow wires)
- Size: 2.1"L x 3.2"W x 2.0"H • Weight: 1.3 lbs.

| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 100 |
|----------|---------------------|--------|--------|--------|
| 183089CX | YS57H-099FAA | \$3.95 | \$3.56 | \$2.84 |

120VAC to 120VAC Isolation Transformer

300VA

- Input voltage: 120VAC @ 60Hz
- Input connector: 5.5" cord with 2-prong plug
- Output voltage: 120VAC @ 2.5A (isolated)
- Size: 4.2"H x 3.2"W x 4.6"D • Weight: 7.0 lbs.

| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 100 |
|----------|---------------------|---------|---------|---------|
| 18135CX | ITR300 | \$44.95 | \$33.75 | \$23.65 |

EMI Suppression Cores with Case

Reduce Electro Magnetic Interference (EMI) with a snap of these suppression cores around a power cord or data cord. Easy to install and an affordable way to reduce EMI without redesigning your product.

| Part No. | Size (OutDia. x InDia. x L) | 1 | 10 | 100 |
|----------|-----------------------------|--------|--------|--------|
| 218173CX | .64" x .20" x 1.15" | \$.99 | \$.89 | \$.79 |
| 217841CX | .78" x .34" x 1.40" | 1.45 | 1.29 | 1.15 |

320VA Variable AC Transformer

- Input voltage: 110VAC @ 60Hz (using pin 1-2)
110VAC @ 50Hz (using pin 1-4)
- Matching input/output terminals: P/N 103667CX and 109111CX (disconnect .25" solderless terminals), pg 65
- Maximum current: 2.5A
- Size: 2.8"Dia. x 2.1"H
- Weight: 2.5 lbs.
- Panel mount
- Shaft length: 0.5"
- One-year warranty

Includes: 3 disconnect .25" solderless terminals

| Part No. | Description | 1 | 10 | 50 |
|----------|----------------|---------|---------|---------|
| 149323CX | 320VA variable | \$53.95 | \$48.59 | \$43.75 |

550VA Variable AC Transformer

- Input voltage: 110VAC @ 60Hz
- Output voltage: 0-140VAC
- Rated current: 5A
- Panel mount
- Input/output terminals: binding post with 0.188" diameter post
- Size: 4.3"Dia. x 4.0"H
- Weight: 6.8 lbs.
- One-year warranty

| Part No. | Description | 1 | 10 | 50 |
|----------|----------------|---------|---------|---------|
| 152936CX | 550VA variable | \$62.95 | \$56.66 | \$50.99 |

500VA & 2000VA Variable Transformers

- Input voltage: 110VAC @ 60 Hz
- Power: 500 or 2000VA
- Output voltage: 0 to 130VAC
- Output analog voltmeter
- Input conn.: 3-prong plug w/ 5' cord
- Output conn.: 3-prong outlet type
- Lighted on/off power switch

169640CX: • 5A @ 250V fuse
• Size: 8.3"L x 6.5"W x 7.0"H
• Weight: 15.6 lbs.

169658CX: • 20A @ 250V fuse
• Size: 9.8"L x 8.0"W x 7.0"H
• Weight: 26.5 lbs.

| Part No. | Description | 1 | 10 | 50 |
|----------|---------------|---------|---------|---------|
| 169640CX | 500VA trans. | \$84.95 | \$76.49 | \$68.85 |
| 169658CX | 2000VA trans. | 124.95 | 112.49 | 101.25 |

500-2000VA Variable Transformers

- Input: 110VAC or 220VAC
- Power: 500-2000VA
- Output: 0-240VAC
- Banana/screw input terminals
- Universal US/European output plugs
- Lighted on/off power switch

| Part No. | Fuse | Size (L" x W" x H") | Wt. (lbs.) |
|----------|------------------------|---------------------|------------|
| 121275CX | 3A/250V (P/N 69438CX) | 5.3 x 7.3 x 7.0 | 10.4 |
| 129007CX | 5A/250V (P/N 10401CX) | 9.4 x 6.5 x 7.7 | 14.8 |
| 152581CX | 10A/250V (P/N 69462CX) | 9.0 x 7.0 x 7.7 | 19.8 |

| Part No. | Description | 1 | 10 | 50 |
|----------|---------------|---------|---------|---------|
| 121275CX | 500VA trans. | \$79.95 | \$69.95 | \$62.95 |
| 129007CX | 1000VA trans. | 164.95 | 148.49 | 133.65 |
| 152581CX | 2000VA trans. | 174.95 | 158.45 | 139.95 |

DataCom Transformers

Modem Coupling Transformers

- Insulation resistance: 100MΩ
- Hipot tested: 1000VAC
- Core type: EI-14
- ±20% impedance matching
- Vacuum wax impregnated
- ±20% DC resistance matching

| Part Number | Mfr. Cross Reference No. | Impedance (Ω) | | Resistance (Ω) | | Pricing | | |
|-------------|--------------------------|---------------|-----------|----------------|-----------|---------|--------|--------|
| | | Primary | Secondary | Primary | Secondary | 1 | 10 | 100 |
| 125356CX | XFR6006A14 | 600CT | 600CT | 65 | 55 | \$1.29 | \$1.18 | \$1.08 |
| 205962CX | 60-282-0 | 1.2KCT | 8 | 45 | 1.5 | 1.69 | 1.45 | 1.09 |

Modem Coupling Transformers

- Dielectric strength: 1250VAC

| Part Number | Mfr. Cross Ref. No. | Impedance (Ω) | | Resistance (Ω) | | Insertion Loss | Pricing | | |
|-------------|---------------------|---------------|-----------|----------------|-----------|----------------|---------|--------|--------|
| | | Primary | Secondary | Primary | Secondary | | 1 | 10 | 100 |
| 141621CX | 671-8255 | 600 | 600 | 46.5 | 67.6 | 1.25dB @ 1kHz | \$1.95 | \$1.79 | \$1.59 |
| 117760CX | 671-8014 | 600 | 600 | 108 | 120 | 2.50dB @ 1kHz | 1.99 | 1.69 | 1.27 |

Current Sensing Transformers

Class 1 Current Transformer

This series can be applied to test, control, display, and record the running of electrical equipment, and to protect the equipment against damage in the AC circuit.

- Maximum voltage: 660VAC
- Size: 3.0"L x 3.2"W x 1.6"T
- Frequency: 50-60Hz
- Weight: 1.1 lbs.

Includes: Mounting bracket and hardware

| Part No. | Mfr. Cross Ref. No. | Power | Ratio | 1 | 10 | 100 |
|----------|---------------------|-------|--------------|--------|--------|--------|
| 174887CX | MSQ30 | 5VA | 200A/5A; 5VA | \$3.99 | \$3.79 | \$3.59 |

Current Sensing Transformer

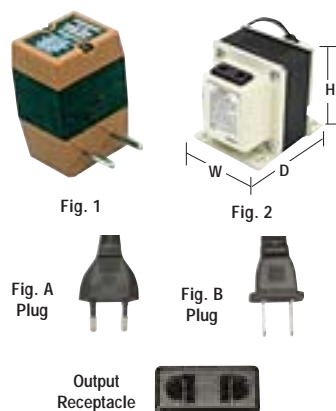
- Inductance: 5mH
- Turns: 60
- Sensitivity current (I_{in}): 1A
- Max. current: 300mA
- Freq. range: 10-50 kHz
- Sensitivity voltage (V_{out}): 1V
- Terminating resistor: 50Ω
- Size: 0.8"H x 0.7"W x 0.4"T

| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 100 |
|----------|---------------------|--------|--------|--------|
| 164718CX | MTC30101 | \$2.15 | \$1.95 | \$1.75 |

International Step-Up/Step-Down Auto and Isolation Transformers

SALE

- Wide selection to meet your power requirements



| Part Number | Mfr. Cross Ref. No.* | Fig. | Type | Primary Voltage | Secondary Voltage | Power (VA) | Dimensions | | | Weight (lbs.) | Pricing | | |
|-------------|----------------------|------|-----------|-----------------|-------------------|------------|------------|------|------|---------------|-------------------------|--------|--------|
| | | | | | | | H" | W" | D" | | 1 | 10 | 100 |
| 99573CX | AC110V50 | 1/A | Auto | 220VAC | 110VAC | 50 | 2.50 | 1.63 | 1.33 | 0.7 | \$9.95 | \$8.99 | \$8.09 |
| 85016CX | AC110V300 | 2/A | Auto | 220VAC | 110VAC | 300 | 3.50 | 3.05 | 3.95 | 4.8 | 27.95 | 24.95 | 22.49 |
| 111851CX | AC110V500 | 2/A | Auto | 220VAC | 110VAC | 500 | 3.99 | 3.60 | 4.84 | 8.5 | 34.95 | 31.49 | 28.95 |
| 221250CX | GSD-1000 | 2/A | Auto | 220VAC | 110VAC | 1000 | 4.63 | 3.81 | 6.06 | 17.0 | 89.95 89.95 | 62.96 | 56.66 |
| 142906CX | AC110V1500 | 2/A | Auto | 220VAC | 110VAC | 1500 | 5.25 | 4.50 | 5.75 | 15.2 | 79.95 | 71.95 | 64.95 |
| 99477CX | AC220V50 | 1/B | Auto | 110VAC | 220VAC | 50 | 2.50 | 1.63 | 1.33 | 0.7 | 8.95 | 8.09 | 7.25 |
| 221233CX | P8638 | 2/B | Auto | 110VAC | 220VAC | 125 | 3.13 | 2.50 | 3.00 | 3.0 | 28.95 | 26.55 | 22.35 |
| 85008CX | AC220V300 | 2/B | Auto | 110VAC | 220VAC | 300 | 3.50 | 3.05 | 3.95 | 4.8 | 27.95 | 24.95 | 22.49 |
| 221217CX | P8689 | 2/B | Auto | 110VAC | 220VAC | 1000 | 4.63 | 3.75 | 6.13 | 17.0 | 61.95 | 57.55 | 43.85 |
| 221313CX | G1SD-500 | 2/A | Isolation | 220VAC | 110VAC | 500 | 4.69 | 3.75 | 6.00 | 16.0 | 78.95 | 69.95 | 57.49 |
| 222092CX | G1SD-1000 | 2/A | Isolation | 220VAC | 110VAC | 1000 | 5.38 | 4.38 | 8.13 | 31.0 | 149.95 | 132.55 | 129.25 |
| 221348CX | G1S-250 | 2/B | Isolation | 110VAC | 110VAC | 250 | 4.69 | 3.75 | 4.38 | 9.0 | 86.95 40.49 | 36.44 | 32.80 |
| 221330CX | G1S-500 | 2/B | Isolation | 110VAC | 110VAC | 500 | 4.69 | 3.75 | 6.00 | 16.0 | 78.95 | 69.95 | 57.49 |
| 221321CX | G1S-1000 | 2/B | Isolation | 110VAC | 110VAC | 1000 | 5.38 | 4.38 | 8.13 | 31.0 | 149.95 71.15 | 82.02 | 73.81 |

* Manufacturer may vary

International Power Cords

- 3-conductor detachable power cords
- Excellent resistance to jacket abrasion
- Voltage rating: 300 volts
- BSI: British Standard Institution



Cord Configuration Chart – End 1



A

SALE

Cord Configuration Chart – End 2



117911CX (Fig. 1)



174633CX (Fig. 2)

European Agency Approvals

| | | |
|-------------|-------|--|
| Germany | VDE | |
| Austria | OVE | |
| Belgium | CEBEC | |
| Denmark | DEMKO | |
| Finland | FIMKO | |
| France | LCIE | |
| Netherlands | KEMA | |
| Norway | NEMKO | |
| Sweden | SEMKO | |
| Switzerland | SEV | |

Fig. 3

| Part Number | Mfr. Cross Reference No.* | Country | Agency Approvals | Cord Plug Fig. | | Length | Cord Color | Conductors | Cord Type | Pricing | | | |
|-------------|---------------------------|------------|------------------|----------------|-------|--------|------------|----------------------|-----------|---------|--------|--------|--------|
| | | | | End 1 | End 2 | | | | | 1 | 10 | 100 | 250 |
| 117911CX | PCVDE-6B | Europe | All in Fig. 3 | A | 1 | 6 ft. | Black | 3/.75mm ² | H05VVf | \$5.49 | \$4.95 | \$4.45 | \$3.75 |
| 174633CX | 21071H5182 | UK/Ireland | BSI | A | 2 | 8 ft. | Black | 3/1.0mm ² | H05VVf | 6.49 | 5.84 | 5.26 | 4.73 |

* Manufacturer may vary

Power Entry Filters and AC Receptacles

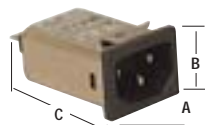


Fig. 1 (146907CX)

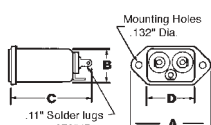


Fig. 2 (Solder Terminals)

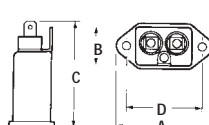


Fig. 3 (Fast-on Terminals)



Fig. 4 (210913CX)

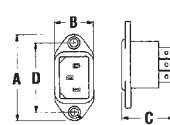


Fig. 5 (Male)



- Frequency: 50/60Hz

SALE

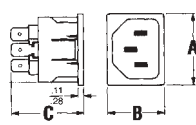


Fig. 6 (Female)



Fig. 7 (117444CX)

Quantity SAVE



Fig. 8 (184903CX)



Fig. 9 (265527CX)

| Part Number | Mfr. Cross Ref. No. | Corcom Cross | Description | Fig. | Current (A) | Voltage (VAC) | Terminals | Agency Approvals | Terminal Size | Dimension (inches) | | | | Pricing | | | |
|-------------|---------------------|--------------|---|------|-------------|---------------|-----------|------------------|---------------|--------------------|------|------|------|----------------------|--------|--------|---------------|
| | | | | | | | | | | A | B | C | D | 1 | 10 | 100 | 500 |
| 146907CX | 03DENG3B* | | Power entry filter (snap-in) | 1 | 3 | 250 | fast-on | UL/CSA/VDE | .25" | 1.25 | 0.95 | 2.23 | N/A | \$4.95 | \$4.45 | \$3.39 | <u>\$2.49</u> |
| 150615CX | 03AC1 | 3EF1 | Power entry filter, straight (flanged) | 2 | 3 | 250 | solder | UL/CSA/VDE | .16" | 1.89 | 0.88 | 2.58 | 1.58 | 5.95 | 4.79 | 3.59 | <u>2.55</u> |
| 42454CX | 06AC1 | 6EF1 | Power entry filter, straight (flanged) | 2 | 6 | 250 | solder | UL/CSA/VDE | .16" | 1.96 | 0.88 | 2.06 | 1.58 | 8.95 | 8.09 | 7.25 | 6.55 |
| 165016CX | SUP-J15G-E-2 | | Power entry filter, straight (flanged) | 2 | 15 | 250 | solder | UL/CSA/VDE | .16" | 1.89 | 0.88 | 2.18 | 1.58 | 5.95 | 5.35 | 4.85 | 4.05 |
| 40601CX | 03AE1* | 3EF1F | Power entry filter, straight (flanged) | 3 | 3 | 250 | fast-on | UL/CSA/VDE | .25" | 1.97 | 0.90 | 2.16 | 1.58 | 5.95 | 4.79 | 3.59 | 2.55 |
| 63132CX | 06AE1 | 6EF1F | Power entry filter, straight (flanged) | 3 | 6 | 250 | fast-on | UL/CSA/VDE | .16" | 1.96 | 0.88 | 2.06 | 1.58 | 6.95 | 6.29 | 5.65 | 5.09 |
| 217744CX | 10AE1 | 10EF1F | Power entry filter, straight (flanged) | 3 | 10 | 250 | fast-on | UL/CSA/VDE | .25" | 1.96 | 0.89 | 2.23 | 1.58 | 6.18 | 5.62 | 5.11 | 4.64 |
| 220206CX | 10GEEG3E | | Power entry filter, straight (flanged) | 3 | 10 | 250 | solder | UL/CSA/VDE | .16" | 1.96 | 0.87 | 2.16 | 1.58 | 8.49 4.85 | 4.34 | 3.90 | 3.51 |
| 210913CX | 01GEEW3E | | Power entry filter, straight (flanged) | 4 | 1 | 250 | wire | UL/CSA/VDE | 4.1" | 2.05 | 0.99 | 1.78 | 1.58 | 5.95 | 4.79 | 3.59 | <u>2.55</u> |
| 147109CX | 42R02 | | AC power inlet (male) snap-in | 5 | 15 | 250 | fast-on | UL/CSA/VDE | .25" | 1.22 | 0.94 | 1.13 | N/A | .26 | .23 | .21 | .19 |
| 16651CX | JR101 | | AC power inlet (male) flanged | 5 | 15 | 250 | fast-on | UL/CSA/VDE | .187" | 1.96 | 0.89 | 1.07 | 1.58 | .79 | .71 | .57 | <u>.41</u> |
| 147900CX | P0707* | | AC power inlet (male) flanged | 5 | 15 | 250 | solder | UL/CSA/VDE | .16" | 1.96 | 0.89 | 1.04 | 1.58 | .75 | .68 | .59 | .55 |
| 218288CX | 0708-1-CQ | | AC power outlet (female) flanged | 6 | 10 | 250 | fast-on | UL/CSA/VDE | .189" | 1.97 | 1.14 | 1.27 | 1.58 | .79 | .71 | .64 | .58 |
| 117444CX | 0717 ¹ | | AC power inlet (male) fused (snap-in) | 7 | 10 | 250 | fast-on | UL/CSA/VDE | .187" | 1.18 | 1.30 | 1.21 | N/A | 1.95 | 1.79 | 1.59 | 1.45 |
| 265527CX | WS-044 | | AC power inlet (male) fused | 9 | 10 | 250 | fast-on | UL/CSA/VDE | .185" | 1.73 | 1.29 | 0.77 | 1.42 | 1.79 | 1.59 | 1.39 | 1.29 |
| 184903CX | 42R363152IOU | | AC power inlet (male) w/ switch (snap-in) | 8 | 15 | 250 | fast-on | UL/CSA/VDE | .25" | 1.30 | 1.58 | 1.42 | N/A | 1.95 | 1.69 | 1.39 | <u>1.05</u> |

* Manufacturer may vary

¹ Includes spare fuse holder – Fuse type 5mm x 20mm (250V)

Power Cords

Color Code Legend
New Sale Qty Save Closeout

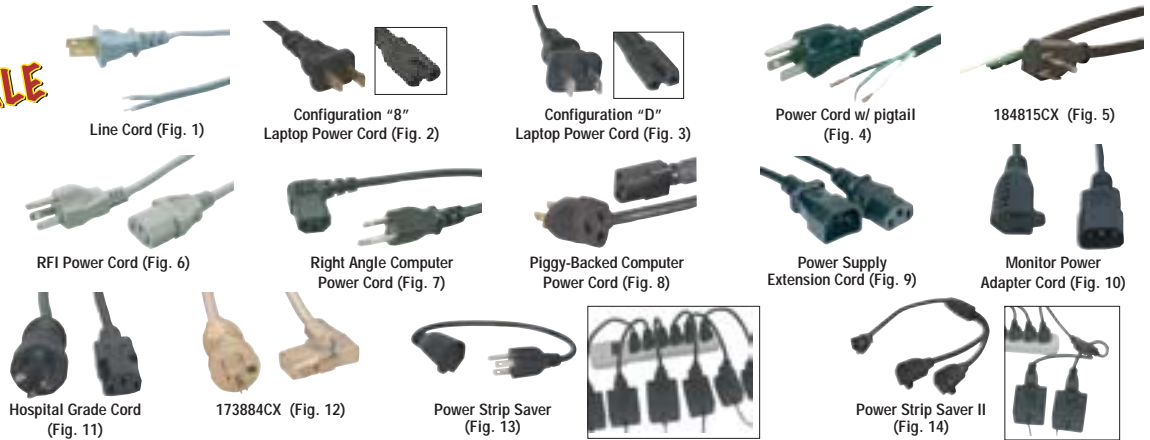
- Molded connectors
- Excellent resistance to jacket abrasion
- Temperature:
-20°C to +60°C
- Voltage rating: 300 volts

SALE

| AWG | Volts | Amps | VA |
|-----|-------|------|------|
| 18 | 125 | 10 | 1250 |
| 16 | 125 | 12 | 1500 |
| 14 | 125 | 15 | 1875 |



Quantity
SAVE



| Part Number | Mfr. Cross Reference No. | Description | Weight (lbs.) | Agency Approvals | Plug Fig. | Length | Color | AWG | Cord Type* | Pricing | | | |
|-------------|--------------------------|--|---------------|------------------|-----------|--------|-------|------|------------|---------|-------|-------|-------|
| | | | | | | | | | | 1 | 10 | 100 | 250 |
| 152186CX | 17106BG | 2-conductor power cord with pigtail | .20 | UL/CSA | 1 | 6' | Beige | 18/2 | SPT-2 | \$1.09 | \$.98 | \$.78 | \$.59 |
| 124433CX | ST008 | 2-conductor power cord with pigtail | .16 | UL/CSA | 1 | 6' | Black | 18/2 | SPT-2 | 1.15 | .99 | .89 | .79 |
| 42041CX | 17106 | 2-conductor power cord with pigtail with strain relief | .25 | UL/CSA | 1 | 6' | Black | 18/2 | SPT-2 | 1.15 | .99 | .89 | .79 |
| 146309CX | PC182J6 | 2-conductor power cord with pigtail (round) | .31 | UL/CSA | 1 | 6' | Black | 18/2 | SJT | .99 | .79 | .59 | .42 |
| 189587CX | VW-1 | 2-conductor "8" style power cord for laptops and power supplies | .30 | UL/CSA | 2 | 6' | Black | 18/2 | SPT-2 | 2.95 | 2.21 | 1.99 | 1.79 |
| 200791CX | LL114039 | 2-conductor "D" style power cord for laptops and power supplies | .30 | UL/CSA | 3 | 6' | Black | 18/2 | SPT-2 | 2.95 | 2.69 | 2.39 | 1.45 |
| 38009CX | 17237 | 3-conductor power cord with pigtail | .31 | UL/CSA | 4 | 6' | Gray | 18/3 | SVT | 2.39 | 2.15 | 1.94 | 1.74 |
| 173809CX | 17405 | 3-conductor power cord with pigtail | .39 | UL/CSA | 4 | 6' | Gray | 18/3 | SJT | 2.39 | 2.15 | 1.72 | 1.29 |
| 37997CX | 17236 | 3-conductor power cord with pigtail | .30 | UL/CSA | 4 | 6' | Black | 18/3 | SVT | 2.79 | 2.32 | 2.11 | 1.99 |
| 279662CX | 32V86S | 3-conductor power cord with pigtail | .32 | UL/CSA | 4 | 6' | Black | 18/3 | SVT | 2.79 | 2.32 | 2.11 | 1.99 |
| 159409CX | 17405B | 3-conductor power cord with pigtail | .37 | UL/CSA | 4 | 6' | Black | 18/3 | SJT | 2.59 | 2.15 | 1.95 | 1.79 |
| 38025CX | 17238 | 3-conductor power cord with pigtail | .39 | UL/CSA | 4 | 8' | Black | 18/3 | SVT | 3.29 | 2.75 | 2.45 | 2.25 |
| 102007CX | 17535B | 3-conductor power cord with pigtail | .49 | UL/CSA | 4 | 10' | Black | 18/3 | SVT | 3.25 | 2.92 | 2.34 | 1.76 |
| 196285CX | LL40378 | 3-conductor power cord with pigtail | .80 | UL/CSA | 4 | 10' | Black | 16/3 | SJT | 3.49 | 3.15 | 2.79 | 2.49 |
| 166924CX | 17516 | 3-conductor power cord with pigtail | .67 | UL/CSA | 4 | 6' 7" | Black | 14/3 | SJT | 3.95 | 3.55 | 3.19 | 2.79 |
| 100271CX | 17629B | 3-conductor power cord with pigtail | .88 | UL/CSA | 4 | 9' | Black | 14/3 | SJT | 4.25 | 3.55 | 3.25 | 2.89 |
| 184815CX | 17629BR | 3-conductor right angle power cord with pigtail | .77 | UL/CSA | 5 | 7' | Black | 14/3 | SJT | 2.15 | 1.89 | 1.69 | 1.55 |
| 103747CX | 17248 | 3-conductor power supply cord | .34 | UL/CSA | 6 | 6' | Gray | 18/3 | SVT | 3.59 | 3.05 | 2.69 | 2.59 |
| 213874CX | 17660BG | 3-conductor power supply cord (shielded) | .40 | UL/CSA | 6 | 6' | Beige | 18/3 | SVT | 3.59 | 3.25 | 2.95 | 2.65 |
| 38041CX | 17249 | 3-conductor power supply cord | .37 | UL/CSA | 6 | 6' | Beige | 18/3 | SVT | 3.49 | 3.15 | 2.79 | 2.49 |
| 38050CX | 17250 | 3-conductor power supply cord | .36 | UL/CSA | 6 | 6' | Black | 18/3 | SVT | 3.65 | 3.29 | 2.95 | 2.55 |
| 161761CX | 17742 | 3-conductor power supply cord (shielded) | .40 | UL/CSA | 6 | 6' | Black | 18/3 | SVT | 4.49 | 4.05 | 3.65 | 3.29 |
| 132118CX | 17500 | 3-conductor power supply cord | .44 | UL/CSA | 6 | 6' | Black | 18/3 | SJT | 4.49 | 4.05 | 3.65 | 3.05 |
| 117583CX | 17502 | 3-conductor power supply cord | .37 | UL/CSA | 6 | 8' | Gray | 18/3 | SVT | 3.49 | 2.62 | 2.36 | 2.12 |
| 171096CX | 17758 | 3-conductor power supply cord | .60 | UL/CSA | 6 | 8' | Black | 18/3 | SJT | 3.95 | 3.55 | 3.19 | 2.89 |
| 229219CX | 9350819 | 3-conductor power supply cord (shielded) | .45 | UL/CSA | 6 | 8' | Black | 18/3 | SJT | 4.49 | 3.37 | 3.03 | 2.73 |
| 102023CX | 17501V | 3-conductor power supply cord | .55 | UL/CSA | 6 | 10' | Black | 18/3 | SVT | 3.95 | 3.39 | 3.09 | 2.79 |
| 192727CX | 17501J | 3-conductor power supply cord | .64 | UL/CSA | 6 | 10' | Black | 18/3 | SJT | 3.95 | 3.59 | 2.89 | 2.15 |
| 190625CX | 37805 | 3-conductor power supply cord (shielded) | .75 | UL/CSA | 6 | 10' | Beige | 18/3 | SJT | 3.49 | 3.14 | 2.83 | 2.54 |
| 163361CX | 6952299 | 3-conductor power supply cord | .33 | UL/CSA | 6 | 14' | Black | 18/3 | SJT | 5.39 | 4.85 | 4.39 | 3.95 |
| 159361CX | 17602 | 3-conductor power supply cord | .57 | UL/CSA | 6 | 6' | Black | 16/3 | SJT | 3.79 | 3.15 | 2.79 | 2.49 |
| 142607CX | 17502 | 3-conductor power supply cord (shielded) | .63 | UL/CSA | 6 | 6' | Black | 16/3 | SJT | 4.19 | 3.79 | 3.39 | 3.05 |
| 249383CX | LL34977 | 3-conductor power supply cord | .72 | UL/CSA | 6 | 9' | Black | 16/3 | SJT | 3.95 | 3.55 | 3.19 | 2.89 |
| 125541CX | 17504 | 3-conductor power supply cord | .71 | UL/CSA | 6 | 6' 7" | Black | 14/3 | SJT | 4.95 | 4.25 | 3.35 | 2.50 |
| 117356CX | 8120-6177 | 3-conductor right angle power supply cord | .41 | UL/CSA | 7 | 6' | Gray | 18/3 | SVT | 3.95 | 3.19 | 2.39 | 1.69 |
| 38076CX | 17250R | 3-conductor right angle power supply cord | .54 | UL/CSA | 7 | 6' | Black | 18/3 | SVT | 3.49 | 3.15 | 2.85 | 2.55 |
| 173251CX | 17250RS | 3-conductor right angle power supply cord (shielded) | .40 | UL/CSA | 7 | 6' | Black | 18/3 | SVT | 3.29 | 2.99 | 2.69 | 2.39 |
| 177383CX | 17507 | 3-conductor right angle power supply cord | .66 | UL/CSA | 7 | 10' | Black | 18/3 | SJT | 3.95 | 3.59 | 3.19 | 2.69 |
| 84937CX | 17669-6 | 3-conductor piggy backed computer power cord | .47 | UL/CSA | 8 | 6' | Black | 18/3 | SJT | 6.95 | 6.29 | 5.05 | 3.79 |
| 28468CX | PEC | 3-conductor computer power supply extension cord | .36 | UL/CSA | 9 | 6' | Black | 18/3 | SVT | 3.90 | 2.95 | 2.65 | 2.39 |
| 121291CX | PEC2 | 3-conductor computer power supply extension cord | .55 | UL/CSA | 9 | 8' | Black | 18/3 | SJT | 1.88 | 1.69 | 1.52 | 1.37 |
| 175855CX | PECUL10 | 3-conductor computer power supply extension cord | .53 | UL/CSA | 9 | 10' | Black | 18/3 | SVT | 2.95 | 2.21 | 1.99 | 1.79 |
| 177447CX | MPC1 | 3-conductor monitor power adapter cord | .16 | UL/CSA | 10 | 1' | Black | 18/3 | SVT | 2.95 | 2.49 | 2.15 | 1.79 |
| 132011CX | 17006G | 3-conductor power cord w/ hospital grade male (green dot) | .82 | UL/CSA | 11 | 10' | Gray | 16/3 | SJT | 8.45 | 7.65 | 6.15 | 4.59 |
| 265412CX | EXIT0W | 3-conductor power cord w/ hospital grade male (green dot) | .70 | UL/CSA | 11 | 10' | Gray | 18/3 | SJT | 7.99 | 7.29 | 6.55 | 5.89 |
| 115078CX | 17006 | 3-conductor power cord w/ hospital grade male (green dot) | .84 | UL/CSA | 11 | 10' | Black | 16/3 | SJT | 8.95 | 8.05 | 6.45 | 4.89 |
| 173884CX | 3472WJ698G | 3-conductor power cord w/ hospital grade male rt ang (green dot) | .85 | UL/CSA | 12 | 9' | Gray | 16/3 | SJT | 7.95 | 7.19 | 6.45 | 5.45 |
| 199777CX | PSS-1 | 3-conductor power cord (power strip saver) | .16 | UL/CSA | 13 | 1' | Black | 18/3 | SVT | 1.69 | 1.55 | 1.39 | 1.25 |
| 208338CX | SY0527BG | 3-conductor power cord (power strip saver) | .16 | UL/CSA | 13 | 1' | Beige | 18/3 | SVT | 1.69 | 1.45 | 1.09 | 1.09 |
| 208346CX | GPR-2006 | 3-conductor power cord ("Y" type power strip saver) | .38 | UL/CSA | 14 | 2' | Black | 18/3 | SVT | 2.89 | 2.75 | 2.59 | 2.59 |

* Thermoplastic Cord Jacket Type: SPT-2 (Flat): Junior duty; SVT (Round): Light service; SJT (Round): Junior service



Lead Acid Batteries

- Color-coded terminals
- Sealed
- Rechargeable

- UL approved
- Two-year warranty



SALE



155328CX



218384CX



218430CX



218376CX

Tempest is an ISO-9001 Certified Company

| Part Number | Product Number | Nominal Voltage | Amp-Hrs. | Charging Voltage | | Cross Reference | | | Terminal Size | Size (L" x W" x H") | Wt. (lbs.) | Pricing | | |
|-------------|----------------|-----------------|----------|------------------|-----------|-----------------|----------|--------------|-------------------------|---------------------|------------|--------------------|--------|--------|
| | | | | Standby | Cyclic | Panasonic | YUASA | Eagle Picher | | | | 1 | 10 | |
| 218309CX | TR1.3-6 | 6 | 1.3 | 6.8-6.9 | 7.25-7.45 | LC-R01R3P | NP01.2-6 | CF6V1.6 | Quick connect 0.185" | 3.8 x 1.0 x 2.0 | 0.7 | \$7.89 | \$6.95 | \$6.26 |
| 155328CX | TR4-6 | 6 | 4 | 6.75-6.9 | 7.2-7.5 | LCR6VP | NP4-6 | CF16V4 | Quick connect 0.185" | 2.8 x 1.9 x 4.0 | 1.8 | | 10.49 | 9.25 |
| 218317CX | TR5-6A | 6 | 5 | 6.8-6.9 | 7.25-7.45 | LCR6V4PL | NP4-6 | CF6V4.5 | Quick connect 0.185" | 2.8 x 1.9 x 4.0 | 2.1 | | 11.45 | 10.49 |
| 218325CX | TR5-6B | 6 | 5 | 6.8-6.9 | 7.25-7.45 | — | — | — | Spring | 2.6 x 2.6 x 3.8 | 2.2 | \$11.45 | 9.95 | 8.96 |
| 218333CX | TR7-6 | 6 | 7 | 6.8-6.9 | 7.25-7.45 | LC-R067R2P | NP7-6 | CF6V7 | Quick connect 0.185" | 6.0 x 1.3 x 3.8 | 3.0 | \$12.95 | 10.95 | 9.86 |
| 175054CX | TR10-6 | 6 | 10 | 6.75-6.9 | 7.2-7.5 | LCR6V10P | NP10-6 | CFM6V10 | Quick connect 0.185" | 5.9 x 2.0 x 3.8 | 4.3 | | 14.49 | 12.95 |
| 218350CX | TR12-6A | 6 | 12 | 6.8-6.9 | 7.25-7.45 | LC-R0612P | NP10-6 | CF6V12 | Quick connect 0.185" | 5.9 x 2.0 x 3.8 | 4.6 | | 13.95 | 12.89 |
| 218368CX | TR14-6 | 6 | 14 | 6.8-6.9 | 7.25-7.45 | — | — | — | Wire w/ power connector | 4.3 x 2.8 x 5.5 | 6.0 | \$25.95 | 22.95 | 20.66 |
| 218376CX | TR0.8-12 | 12 | 0.8 | 13.6-13.8 | 14.5-14.9 | — | NP0.8-12 | — | Wire w/ power connector | 3.8 x 1.0 x 2.4 | 0.8 | | 15.95 | 14.49 |
| 218384CX | TR1.3-12 | 12 | 1.3 | 13.6-13.8 | 14.5-14.9 | LC-R121R3PU | NP1.2-12 | CF12V1.3 | Quick connect 0.185" | 3.8 x 1.7 x 2.0 | 1.3 | | 16.49 | 14.85 |
| 159661CX | TR2.3-12 | 12 | 2.3 | 13.5-13.8 | 14.4-15 | LCR12V2.2P | NP2.3-12 | CF12V1.5 | Quick connect 0.185" | 7.0 x 1.3 x 2.3 | 1.9 | | 16.95 | 15.25 |
| 218392CX | TR2.9-12 | 12 | 2.9 | 13.6-13.8 | 14.5-14.9 | — | — | — | Quick connect 0.185" | 3.1 x 2.2 x 3.9 | 2.5 | | 17.95 | 16.49 |
| 218405CX | TR3.2-12 | 12 | 3.2 | 13.6-13.8 | 14.5-14.9 | LC-R123R4P | NP3.2-12 | CF12V3 | Quick connect 0.185" | 5.3 x 2.7 x 2.4 | 3.1 | \$19.95 | 16.95 | 15.26 |
| 218413CX | TR5-12 | 12 | 5 | 13.6-13.8 | 14.5-14.9 | LC-R125P | NP5-12 | — | Quick connect 0.185" | 6.6 x 6.9 x 4.9 | 21.1 | \$48.49 | 15.95 | 14.36 |
| 155344CX | TR7.5-12 | 12 | 7.5 | 13.5-13.8 | 14.4-15 | LCR12V7.2BP | NP712 | CFM12V65 | Quick connect 0.185" | 6.0 x 2.6 x 4.0 | 5.9 | | 18.95 | 17.15 |
| 218421CX | TR22-12 | 12 | 22 | 13.6-13.8 | 14.5-14.9 | — | — | — | Terminal pad 0.472"Dia. | 7.2 x 3.0 x 6.6 | 15.0 | | 39.95 | 35.95 |
| 218430CX | TR26-12 | 12 | 26 | 13.6-13.8 | 14.5-14.9 | — | NP24-12 | CFM12V2 | Quick connect 0.649" | 6.6 x 6.9 x 4.9 | 21.1 | | 54.95 | 48.49 |
| 218448CX | TRU1-34 | 12 | 34 | 13.6-13.8 | 14.5-14.9 | — | — | — | Quick connect 0.649" | 7.8 x 5.2 x 6.2 | 25.6 | | 57.95 | 52.95 |
| 218456CX | TR55-14 | 12 | 55 | 13.6-13.8 | 14.5-14.9 | — | — | — | Quick connect 0.629" | 9.0 x 5.4 x 8.2 | 39.7 | | 94.95 | 88.49 |
| 218464CX | TR70-12B | 12 | 70 | 13.6-13.8 | 14.5-14.9 | — | — | — | Quick connect 0.590" | 10.3 x 6.7 x 8.2 | 55.1 | | 148.95 | 134.95 |

Lead Acid Batteries

- Sealed
- UL approved
- Rechargeable
- Two-year warranty



264014CX



264022CX



264031CX



264049CX



264057CX



264065CX



264073CX

| Part Number | Product Number | Nominal Voltage | Amp-Hrs. | Cross Reference | | | | Terminal Size | Size (L" x W" x H") | Wt. (lbs.) | Pricing | |
|-------------|----------------|-----------------|----------|-----------------|----------|--------------|----------|----------------------|---------------------|------------|---------------|---------------|
| | | | | Panasonic | YUASA | Eagle Picher | Tempest | | | | 1 | 10 |
| 264014CX | TY-6-4.5 | 6 | 4.5 | LCR6VP | NP4-6 | CF16V4 | TR-4-6 | Quick Connect 0.187" | 2.8 x 1.9 x 4.0 | 1.9 | \$8.99 | \$7.89 |
| 264022CX | TY-6-10 | 6 | 10.0 | LCR6V10P | NP10-6 | CFM6V10 | TR10-6 | Quick Connect 0.187" | 5.9 x 2.0 x 3.9 | 4.6 | 14.45 | 12.97 |
| 264031CX | TY-12-2.3 | 12 | 2.3 | LCR12V2.2P | NP2.3-12 | CF12V1.5 | TR2.3-12 | Quick Connect 0.187" | 7.0 x 1.3 x 2.4 | 2.1 | 15.39 | 14.59 |
| 264049CX | TY-12-4.5 | 12 | 4.5 | LCR12V4PF | NP412 | CF12V4 | TR4-12 | Quick Connect 0.187" | 3.5 x 2.8 x 4.0 | 3.8 | 15.79 | 14.55 |
| 264057CX | TY-12-7 | 12 | 7.0 | LCR12V7.2BP | NP712 | CFM12V65 | TR7.5-12 | Quick Connect 0.187" | 5.9 x 2.6 x 3.7 | 5.6 | 16.95 | 15.15 |
| 264065CX | TY-12-12 | 12 | 12.0 | PS12120 | — | CFM12V12 | TR12-12 | Quick Connect 0.187" | 5.9 x 3.9 x 3.9 | 9.0 | 30.65 | 28.25 |
| 264073CX | TY-12-18 | 12 | 18.0 | LCR12V17BP | NPG18-12 | CF12V18 | TR18-12 | Quick Connect 0.472" | 7.1 x 3.0 x 6.6 | 13.3 | 32.85 | 28.15 |

Zinc Chloride, Silver Oxide & Alkaline Batteries

Applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, video scramblers/descramblers and remotes.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

Zinc Chloride

| Part Number | Mfr. Cross Ref. | Figure | Size | Volts | mAh | Terminals/Connection | Dimensions | 1 | 10 | 25 |
|-------------|-----------------|--------|------|-------|-----|----------------------|---------------------------|---------------|---------------|---------------|
| 151087CX | AA | 1 | AA | 1.5 | 700 | Barrel Pressure | 1.9"L x 0.55"Dia. | \$.22 | \$.21 | \$.20 |
| 151095CX | GF6F22 | 3 | 9V | 9 | 300 | — | 1.7"L x 1.0"W x 0.67"Dia. | 1.25 | .99 | .79 |

Silver Oxide

| Part Number | Mfr. Cross Ref. | Figure | Size | Volts | mAh | Terminals/Connection | Dimensions | 1 | 10 | 25 |
|-------------|-----------------|--------|--------|-------|------|----------------------|------------|---------------|---------------|---------------|
| 140783CX | 357 | 2 | Button | 1.55 | 1600 | — | 0.454"Dia. | \$1.75 | \$1.49 | \$1.25 |

Alkaline

| Part Number | Mfr. Cross Ref. | Figure | Size | Volts | mAh | Terminals/Connection | Dimensions | 1 | 10 | 25 |
|-------------|-----------------|--------|------|-------|-----|----------------------------|--------------------------|---------------|---------------|---------------|
| 249181CX | LR031.5V | 4 | AAA | 1.5 | — | 3-pack | 1.7"L x 0.40"Dia. | \$1.49 | \$1.27 | \$.95 |
| 249455CX | — | 5 | AA | 1.5 | — | 3-pack | 1.97"L x 0.55"Dia. | 1.29 | 1.23 | 1.16 |
| 150965CX | 840 | 6 | — | 4.5 | 600 | Batt. Pack w/Con. (Apple™) | 1.14"L x 0.73"W x 0.96"H | 9.95 | 8.99 | 8.09 |
| 198791CX | MN1604 | 3 | 9V | 9 | 500 | — | 1.7"L x 1.0"W x 0.67"H | 2.85 | 2.55 | 2.29 |

Eveready® Energizer® Alkaline Batteries



198707CX



198715CX



198731CX



Energizer® and the Energizer Bunny® are registered trademarks of the Eveready Battery Company, Inc.

- Single-use Energizer® alkaline batteries for heavy drain and frequent use applications
- Prepackaged: order in increments of 4

| Part No. | Size | 4 | 8 | 12 |
|----------|--------|---------------|---------------|---------------|
| 198707CX | AA | \$.64 | \$.63 | \$.62 |
| 198715CX | AAA | .55 | .52 | .48 |
| Part No. | Size | 1 | 4 | |
| 198731CX | 9-volt | \$2.59 | \$2.22 | |
| 215845CX | D | 1.95 | 1.69 | |

Lithium, NiCAD and NiMH Batteries

Applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, video scramblers/descramblers and remotes.



Fig. 1



Fig. 2

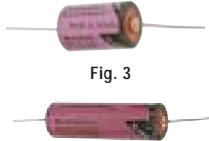


Fig. 3



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11

Lithium & Lithium Ion

| Part Number | Mfr Cross Ref | Figure | Size | Volts | mAh | Terminals/Connection | Dimensions | 1 | 10 | 25 |
|-------------|---------------|--------|-----------|-------|-------|-------------------------------------|--------------------------|--------|--------|--------|
| 240258CX | CR123A | 1 | — | 3 | 1300 | Photo/Computer | 1.36"L x 0.65"Dia. | \$2.66 | \$2.47 | \$2.35 |
| 249471CX | CR123A* | 1 | — | 3 | 1300 | Photo/Computer | 1.34"L x 0.65"Dia. | 2.59 | 2.35 | 2.09 |
| 33371CX | TL5101P | 3 | — | 3.6 | 850 | Barrel w/Leads (Clock/Mem.) | 0.93"L x .56"Dia. | 5.79 | 5.27 | 4.45 |
| 33398CX | TL5104P | 4 | — | 3.6 | 1900 | Barrel w/Leads (Clock/Mem.) | 1.88"L x .56"Dia. | 5.95 | 5.49 | 5.19 |
| 146114CX | TL2100S | 5 | — | 3.6 | 1900 | Barrel Pres. (Clock/Mem.) | 1.91"L x "Dia. | 6.95 | 6.29 | 5.65 |
| 33427CX | TL5242W | 6 | — | 3.6 | 1900 | Battery Pack w/Plug (PC) | 2.38"L x 0.65"W x 0.71"H | 7.49 | 7.15 | 6.75 |
| 33443CX | TL5293W | 7 | — | 6 | 1900 | Battery Pack w/Plug (PC) | 2.28"L x 1.49"W x 0.78"H | 9.49 | 8.99 | 8.50 |
| 240186CX | CR1616 | — | Coin Cell | 3 | 55 | Clock/memory/watch | 0.07"Dia. x 0.61"Th. | .69 | .63 | .60 |
| 240207CX | CR2016 | — | Coin Cell | 3 | 75 | Clock/memory/watch | 0.07"Dia. x 0.79"Th. | .38 | .36 | .34 |
| 240215CX | CR2025 | — | Coin Cell | 3 | 150 | Clock/memory/watch | 0.10"Dia. x 0.78"Th. | .32 | .30 | .28 |
| 11789CX | CR2325 | 2 | Coin Cell | 3 | 165 | Clock/memory/watch | 0.91"Dia. x 0.13"Th. | 1.49 | 1.34 | 1.14 |
| 252232CX | BR2325/1VG | 8 | Coin Cell | 3 | 175 | Vertical, PC Mount | 1.00"Dia. x 0.90"Th. | 1.49 | 1.39 | 1.35 |
| 14162CX | CR2032 | — | Coin Cell | 3 | 180 | Clock/memory/watch | 0.79"Dia. x 0.13"Th. | 1.25 | 1.00 | 7.95 |
| 240223CX | CR2335 | — | Coin Cell | 3 | 300 | Clock/memory/watch | 0.14"Dia. x 0.92"Th. | 1.22 | 1.11 | 1.00 |
| 240231CX | CR2450 | — | Coin Cell | 3 | 500 | Clock/memory/watch | 0.18"Dia. x 0.97"Th. | 1.09 | .98 | .88 |
| 126754CX | TL5101S | 9 | Sub-AA | 3.6 | 850 | Macintosh* | 0.95"L x 0.56"Dia. | 6.95 | 6.29 | 5.65 |
| 240266CX | ER14250 | 12 | Sub-AA | 3.6 | 1000 | Consumer Tip | 1.00"L x 0.55"Dia. | 3.99 | 3.89 | 3.81 |
| 263898CX | ER14250 | 13 | Sub-AA | 3.6 | 1000 | With axial leads | 1.00"L x 0.55"Dia. | 4.29 | 4.11 | 3.90 |
| 263978CX | ER14335 | 13 | Sub-AA | 3.6 | 1450 | With axial leads | 1.30"L x 0.55"Dia. | 4.79 | 4.62 | 4.36 |
| 263951CX | ER14335 | 14 | Sub-AA | 3.6 | 1450 | With solder tabs | 1.30"L x 0.55"Dia. | 4.59 | 4.43 | 4.19 |
| 240282CX | ER14335 | 15 | Sub-AA | 3.6 | 1450 | Consumer Tip | 1.30"L x 0.55"Dia. | 4.59 | 4.45 | 4.19 |
| 263943CX | ER14505 | 10 | AA | 3.6 | 2100 | With axial leads | 2.00"L x 0.57"Dia. | 5.35 | 4.99 | 4.70 |
| 240303CX | ER14505 | 16 | AA | 3.6 | 2400 | Consumer Tip | 2.00"L x 0.55"Dia. | 5.19 | 4.85 | 4.55 |
| 263935CX | ER14505 | 11 | AA | 3.6 | 2100 | With solder tabs | 2.00"L x 0.55"Dia. | 4.99 | 4.38 | 4.14 |
| 240320CX | ER17335 | 17 | Sub-A | 3.6 | 1450 | Consumer Tip | 1.30"L x 0.67"Dia. | 5.25 | 4.75 | 4.39 |
| 264217CX | ER17335 | — | Sub-A | 3.6 | 1450 | With axial leads | 1.30"L x 0.67"Dia. | 5.55 | 4.99 | 4.59 |
| 263986CX | ER26500 | — | C | 3.6 | 8500 | With axial leads | 2.00"L x 1.02"Dia. | 13.19 | 12.42 | 11.67 |
| 240160CX | ER26500 | 18 | C | 3.6 | 8500 | Consumer Tip | 2.00"L x 1.02"Dia. | 11.95 | 11.50 | 11.05 |
| 263994CX | ER34615 | — | D | 3.6 | 16500 | With axial leads | 2.40"L x 1.34"Dia. | 16.65 | 15.68 | 14.73 |
| 240151CX | ER34615 | 19 | D | 3.6 | 16500 | Consumer Tip | 2.40"L x 1.34"Dia. | 15.05 | 14.49 | 13.95 |
| 244646CX | UR18650H1 | 20 | — | 3.6 | 2200 | Flat Top Lithium Ion (rechargeable) | 2.60"L x 0.71"Dia. | 17.55 | 15.79 | 14.21 |

* Samsung

NiCAD

| Part Number | Mfr Cross Ref | Figure | Size | Volts | mAh | Terminals/Connection | Dimensions | 1 | 10 | 25 |
|-------------|---------------|--------|-------|-------|------|----------------------|--------------------|--------|--------|--------|
| 244662CX | AAA-240 | 21 | AAA | 1.2 | 240 | Flat top | 1.70"L x 0.40"Dia. | \$1.89 | \$1.85 | \$1.80 |
| 244540CX | AAA-240-CT | 22 | AAA | 1.2 | 240 | Consumer Tip | 1.70"L x 0.40"Dia. | 1.89 | 1.85 | 1.80 |
| 244380CX | 2/3AA-320 | 23 | 2/3AA | 1.2 | 320 | Flat Top | 1.10"L x 0.55"Dia. | 1.35 | 1.17 | 1.09 |
| 244443CX | 4/5AA-600 | 24 | 4/5AA | 1.2 | 600 | Flat Top | 1.70"L x 0.55"Dia. | 1.15 | 1.03 | .93 |
| 244486CX | AA-600 | 25 | AA | 1.2 | 600 | Flat Top | 1.90"L x 0.55"Dia. | 1.25 | 1.22 | 1.19 |
| 261657CX | AA-700-CT | 26 | AA | 1.2 | 700 | Consumer Tip | 1.90"L x 0.55"Dia. | 1.37 | 1.25 | .96 |
| 244515CX | AA-1000-CT | 26 | AA | 1.2 | 1000 | Consumer Tip | 1.90"L x 0.55"Dia. | 2.65 | 2.43 | 2.33 |
| 244507CX | AA-1000 | 25 | AA | 1.2 | 1000 | Flat Top | 1.90"L x 0.55"Dia. | 2.65 | 2.43 | 2.33 |
| 244355CX | 1/3A-250 | 27 | 1/3A | 1.2 | 250 | Flat Top | 0.65"L x 0.65"Dia. | 1.31 | 1.18 | 1.06 |
| 244371CX | 2/3A-650 | 28 | 2/3A | 1.2 | 650 | Flat Top | 1.10"L x 0.65"Dia. | 1.79 | 1.65 | 1.60 |
| 244603CX | 2/3A-100HD | 28 | 2/3A | 1.2 | 1100 | Flat Top | 1.10"L x 0.65"Dia. | 1.99 | 1.81 | 1.71 |
| 244427CX | 4/5A-1100 | 29 | 4/5A | 1.2 | 1100 | Flat Top | 1.70"L x 0.65"Dia. | 1.65 | 1.45 | 1.39 |
| 244574CX | SC-1500 | 31 | Sub-C | 1.2 | 1500 | Flat Top | 1.70"L x 0.89"Dia. | 2.15 | 1.98 | 1.87 |
| 244953CX | SC-1500HT | 31 | Sub-C | 1.2 | 1500 | Flat Top, High Temp. | 1.70"L x 0.89"Dia. | 2.39 | 2.14 | 2.00 |
| 244654CX | SC-1900 | 31 | Sub-C | 1.2 | 1900 | Flat Top | 1.70"L x 0.89"Dia. | 3.68 | 3.23 | 3.08 |
| 244398CX | 2/3SC-650 | 34 | 2/3SC | 1.2 | 650 | Flat Top | 1.00"L x 0.89"Dia. | 2.85 | 2.50 | 2.36 |
| 244401CX | 2/3SC-700 | 34 | 2/3SC | 1.2 | 700 | Flat Top | 1.00"L x 0.89"Dia. | 3.15 | 2.73 | 2.52 |
| 244451CX | 4/5SC-1250 | — | 4/5SC | 1.2 | 1250 | Flat Top | 1.30"L x 0.89"Dia. | 2.85 | 2.56 | 2.35 |
| 244460CX | 5/4SC-2300 | — | 5/4SC | 1.2 | 2300 | Flat Top | 1.90"L x 0.89"Dia. | 6.05 | 5.57 | 5.05 |
| 244363CX | 1/3C-700 | — | 1/3C | 1.2 | 700 | Flat Top | 0.87"L x 1.00"Dia. | 2.59 | 2.33 | 2.10 |
| 244339CX | 1/2C-800 | 30 | 1/2C | 1.2 | 800 | Flat Top | 0.95"L x 1.00"Dia. | 2.87 | 2.58 | 2.32 |
| 244671CX | C-2000 | 32 | C | 1.2 | 2000 | Flat Top | 1.90"L x 1.00"Dia. | 4.25 | 3.96 | 3.92 |
| 244523CX | C-2200-CT | 33 | C | 1.2 | 2200 | Consumer Tip | 1.90"L x 1.00"Dia. | 4.25 | 3.96 | 3.92 |
| 244531CX | C-2500-CT | 33 | C | 1.2 | 2500 | Consumer Tip | 1.90"L x 1.00"Dia. | 5.15 | 4.86 | 4.65 |



Fig. 24



Fig. 25



Fig. 26



Fig. 27



Fig. 28



Fig. 29



Fig. 30



Fig. 31



Fig. 32



Fig. 33



Fig. 34

NiCAD and NiMH Batteries (continued)

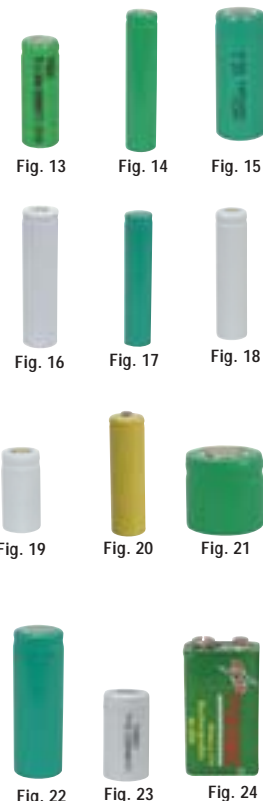


NiCAD

| Part Number | Mfr Cross Ref | Figure | Size | Volts | mAh | Terminals/Connection | Dimensions | 1 | 10 | 25 |
|-------------|---------------|--------|------|-------|------|-------------------------|--------------------|--------|--------|--------|
| 244961CX | C-2500HT | 1 | C | 1.2 | 2500 | Flat Top, High Temp | 1.90"L x 1.00"Dia. | \$5.25 | \$4.74 | \$4.60 |
| 244689CX | C-2500 | 1 | C | 1.2 | 2500 | Flat Top | 1.90"L x 1.00"Dia. | 5.15 | 4.86 | 4.65 |
| 244347CX | 1/2D-2200 | 2 | 1/2D | 1.2 | 2200 | Flat Top | 1.40"L x 1.30"Dia. | 4.29 | 4.05 | 3.85 |
| 244566CX | 2/3D-2800 | — | 2/3D | 1.2 | 2800 | Flat Top | 1.70"L x 1.30"Dia. | 5.25 | 4.73 | 4.35 |
| 244697CX | D-5000 | 3 | D | 1.2 | 5000 | Flat Top | 2.40"L x 1.30"Dia. | 7.79 | 7.60 | 7.45 |
| 244558CX | D-5000-CT | 4 | D | 1.2 | 5000 | Consumer Tip | 2.40"L x 1.30"Dia. | 7.79 | 7.60 | 7.45 |
| 244419CX | 3/2D(F)-8000 | 5 | F | 1.2 | 8000 | Flat Top | 3.45"L x 1.30"Dia. | 20.55 | 18.89 | 16.99 |
| 126720CX | 351FT | 6 | — | 3.6 | 60 | 2-Lead (Pin), Barrel | 0.72"L x 1.28"Dia. | 4.49 | 4.05 | 3.65 |
| 119116CX | 3/V60R | 7 | — | 3.6 | 60 | 3-Lead (Pin), Barrel | 0.74"L x 0.61"Dia. | 3.75 | 3.39 | 3.05 |
| 101653CX | NA101-1 | 8 | — | 3.6 | 60 | 2-Lead (Eyelet), Barrel | 0.72"L x 0.61"Dia. | 5.49 | 4.95 | 3.95 |

NiMH

| Part Number | Mfr Cross Ref | Figure | Size | Volts | mAh | Terminals/Connection | Dimensions | 1 | 10 | 25 |
|-------------|-----------------|--------|--------|-------|------|--------------------------|--------------------------|--------|--------|--------|
| 244937CX | PRIZ-F6(48)-700 | — | — | 1.2 | 700 | Flat Top-Prismatic | 1.86"L x 0.65"W x 0.23"T | \$3.12 | \$2.81 | \$2.53 |
| 244945CX | PRIZ-7/5F6-1100 | 12 | — | 1.2 | 1100 | Flat Top-Prismatic | 2.63"L x 0.65"W x 0.23"T | 4.11 | 3.69 | 3.33 |
| 244582CX | 2/3AAA-300 | 13 | 2/3AAA | 1.2 | 300 | Flat Top | 1.11"L x 0.40"Dia. | 1.49 | 1.25 | .99 |
| 244785CX | 5/4AAA-750 | 17 | 5/4AAA | 1.2 | 750 | Flat Top | 2.00"L x 0.40"Dia. | 2.29 | 2.11 | 2.05 |
| 261665CX | AAA-700FT | 18 | AAA | 1.2 | 700 | Flat Top | 1.70"L x 0.40"Dia. | 2.21 | 1.99 | 1.91 |
| 244806CX | 4/5AA-1200 | 19 | 4/5AA | 1.2 | 1200 | Flat Top | 1.70"L x 0.55"Dia. | 3.25 | 2.93 | 2.63 |
| 244814CX | AA-1800 | 9 | AA | 1.2 | 1800 | Flat Top | 1.90"L x 0.55"Dia. | 2.35 | 2.12 | 1.99 |
| 244822CX | AA-1800-CT | 20 | AA | 1.2 | 1800 | Consumer Tip | 1.90"L x 0.55"Dia. | 2.35 | 2.12 | 1.99 |
| 244831CX | 4/3AA-1900 | 14 | 4/3AA | 1.2 | 1900 | Flat Top | 2.60"L x 0.55"Dia. | 6.89 | 6.20 | 5.58 |
| 244849CX | 1/5A-400 | 21 | 1/5A | 1.2 | 400 | Flat Top | 0.70"L x 0.65"Dia. | 2.39 | 2.15 | 1.93 |
| 244857CX | 2/3A-1100 | 10 | 2/3A | 1.2 | 1100 | Flat Top | 1.10"L x 0.65"Dia. | 3.59 | 3.07 | 2.99 |
| 244864CX | 4/5A-1800 | 15 | 4/5A | 1.2 | 1800 | Flat Top | 1.70"L x 0.65"Dia. | 3.15 | 2.97 | 2.78 |
| 244970CX | A-2200 | 22 | A | 1.2 | 2200 | Flat Top | 1.90"L x 0.65"Dia. | 3.69 | 3.49 | 3.25 |
| 244873CX | 4/3A-2500 | 16 | 4/3A | 1.2 | 2500 | Flat Top | 2.60"L x 0.65"Dia. | 5.29 | 5.01 | 4.68 |
| 244890CX | SC-2900-HD | 23 | Sub-C | 1.2 | 2900 | Flat Top, High Discharge | 1.70"L x 0.90"Dia. | 6.49 | 6.04 | 5.89 |
| 244902CX | D-9000 | 11 | D | 1.2 | 9000 | Flat Top | 2.40"L x 1.30"Dia. | 21.44 | 17.54 | 16.08 |
| 244911CX | D-9000-CT | 11 | D | 1.2 | 9000 | Consumer Tip | 2.40"L x 1.30"Dia. | 21.44 | 17.54 | 16.08 |
| 244620CX | 9V-200 | 24 | 9V | 9 | 200 | Flat Top | 1.94"L x 0.65"Dia. | 7.79 | 6.92 | 6.22 |



Long-Lasting Rechargeable NiMH Batteries & Chargers

Why buy & throw away hundreds of batteries? Now you can reuse longer-lasting, money saving NiMH rechargeable batteries instead! They feature twice the power of NiCAD batteries, so they're ideal for power-hungry devices like digital cameras and camcorders. The chargers below are specifically designed for NiMH batteries.

NiMH Batteries

| Part No. | Description | 1 | 10 | 25 | 100 |
|----------|-----------------|--------|--------|--------|--------|
| 231095CX | 2x AAA, 600mAh | \$6.95 | \$6.25 | \$5.65 | \$5.05 |
| 231087CX | 4x AA, 1600mAh | 13.95 | 12.55 | 11.29 | 10.19 |
| 231116CX | 2x C, 3000mAh | 10.49 | 9.45 | 8.49 | 7.65 |
| 231124CX | 2x D, 7000mAh | 19.59 | 17.65 | 15.89 | 14.29 |
| 231108CX | 1x "9V", 150mAh | 8.39 | 7.95 | 7.59 | 7.19 |

NiMH Chargers

231141CX: Compact battery charger with 4 AA batteries

231132CX: Universal battery charger for AAA, AA, C, D and "9V" cells (batteries not included)

- Selector switch for NiCAD or NiMH type batteries
- Recharge batteries in single or group
- Automatic charging current selection for different size of batteries
- Fast charging in the specified period with automatic switch for trickle charge
- LED lamp to indicate proper charging
- Built-in IC timer control

| Part No. | Description | 1 | 5 | 10 |
|----------|--------------------|---------|---------|---------|
| 231141CX | Compact AA charger | \$19.95 | \$17.95 | \$16.15 |
| 231132CX | Universal charger | 19.95 | 17.95 | 16.15 |



NiMH & NiCAD Battery Charger

Charge your AA or AAA NiMH and AA NiCAD batteries with this 8-hour battery charger. Simply plug into a wall outlet. Red LED indicates charging and green LED indicates ready to use.

- Charging bay allows 4AA or 4AAA batteries to be charged at the same time (only AA NiCAD)
- Output: 4AA 1.35V @ 250mA or 4AAA 1.35V @ 95mA
- Size: 2.8" x 2.4" x 4.6" • Weight: 1.0 lb.

| Part No. | Description | 1 | 10 |
|----------|-----------------|--------|--------|
| 217533CX | Plug-in charger | \$5.49 | \$4.95 |

NiCAD & NiMH Rapid Charger

Why buy & throw away hundreds of batteries? Now you can reuse and recharge your NiCAD and NiMH batteries and save money. Charger is portable so you can recharge your batteries in your car, office or home, in a fraction of the time it takes standard chargers. Includes 4 AA NiMH batteries, wall adapter, and cigarette adapter. Also includes discharge function.

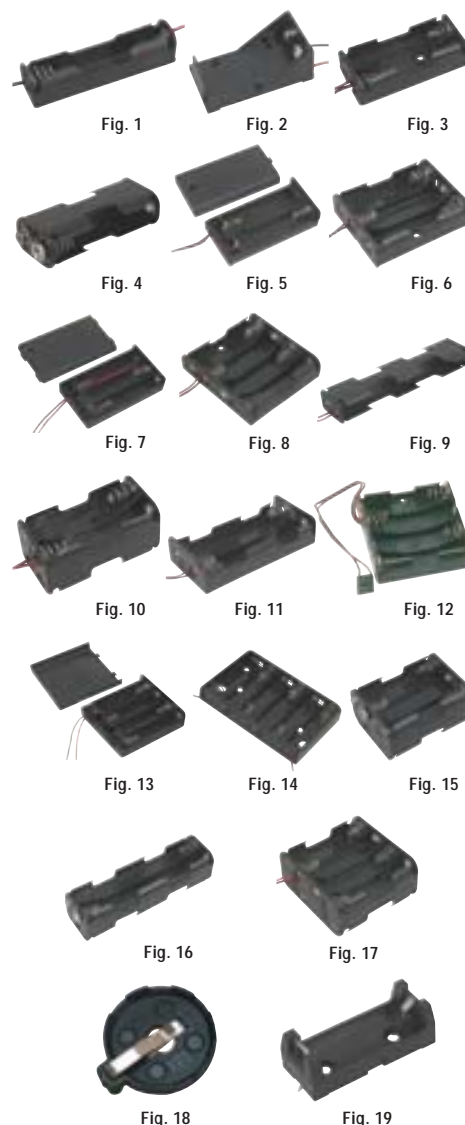
| Part No. | Description | 1 | 10 |
|----------|-------------------|---------|---------|
| 244638CX | AA or AAA charger | \$21.15 | \$20.85 |

Battery Holders

Eliminate battery retention problems in portable DC power applications and products. High-retention snaps are made from special materials that maintain retention properties longer than conventional snaps. They can be with leads, or attached to battery holders.

| Part No. | Mfr. Cross Ref. | Fig. | No. of Cells | Connector | Sides | Features | 1 | 10 | 100 | 500 |
|----------|-----------------|------|-------------------------|-----------|-----------|-----------------------|-------|-------|-------|-------|
| 216071CX | BH-311-2A | 1 | 1-AA | Wires | Single | | \$.69 | \$.59 | \$.54 | \$.49 |
| 237315CX | 1029 | 19 | 1-2/3AA | PC Mount | Single | | .75 | .69 | .59 | .55 |
| 216080CX | BH-321-2A | 3 | 2-AA | Wires | Single | | .69 | .59 | .54 | .49 |
| 216098CX | BH-321-4A | 3 | 2-AA | Wires | Single | With mounting tabs | .69 | .59 | .54 | .49 |
| 216101CX | SBH-321-2A | 5 | 2-AA | Wires | Single | With cover, no switch | \$.79 | \$.59 | \$.52 | \$.35 |
| 216119CX | SBH-321-1AS | 5 | 2-AA | Wires | Single | With cover and switch | .79 | .69 | .64 | .59 |
| 216127CX | BH-322-1B | 4 | 2-AA | Snaps | Dual | | .69 | .59 | .54 | .49 |
| 216135CX | BH-331-A | 6 | 3-AA | Snaps | Single | | .89 | .79 | .74 | .69 |
| 216143CX | SBH-331-AS | 7 | 3-AA | Wires | Single | With cover and switch | .99 | .79 | .75 | .68 |
| 216151CX | BH-341-2A | 8 | 4-AA | Wires | Single | | .99 | .89 | .84 | .79 |
| 105857CX | * | 12 | 4-AA | Wires | Single | Wires with connector | .89 | .75 | .68 | .59 |
| 216160CX | BH-342-A | 9 | 4-AA | Wires | Dual | | .69 | .53 | .47 | .43 |
| 216178CX | BH-343-1A | 10 | 4-AA | Wires | Dual | | .75 | .55 | .49 | .45 |
| 216186CX | SBH-341-1AS | 13 | 4-AA | Wires | Single | With cover and switch | 1.09 | .89 | .85 | .75 |
| 216194CX | BH-341-2B | 8 | 4-AA | Snaps | Single | | .76 | .59 | .53 | .47 |
| 216207CX | BH-343-1B | 10 | 4-AA | Snaps | Dual | | .99 | .89 | .84 | .79 |
| 216215CX | BH-363-A | 15 | 6-AA | Wires | Dual | | .95 | .79 | .69 | .65 |
| 216223CX | BH-364-A | 14 | 6-AA | Wires | Single | | .95 | .85 | .69 | .51 |
| 216231CX | BH-363-B | 15 | 6-AA | Snaps | Dual | | .99 | .75 | .69 | .65 |
| 216240CX | BH-383-A | 17 | 8-AA | Wires | Dual | | 1.19 | .99 | .89 | .85 |
| 216258CX | BH-382-B | 16 | 8-AA | Snaps | Dual | | 1.19 | .99 | .89 | .85 |
| 216266CX | BH-383-B | 17 | 8-AA | Snaps | Dual | | 1.19 | .99 | .89 | .85 |
| 216274CX | BH-411-1A | 1 | 1-AAA | Wires | Single | | \$.69 | .42 | .35 | .29 |
| 216282CX | BH-421-1A | 3 | 2-AAA | Wires | Single | | .69 | .59 | .54 | .49 |
| 216291CX | SBH-421-AS | 5 | 2-AAA | Wires | Single | With cover and switch | .79 | .69 | .59 | .49 |
| 216303CX | BH-431-1A | 6 | 3-AAA | Wires | Single | | .89 | .79 | .74 | .69 |
| 216311CX | SBH-431-1AS | 7 | 3-AAA | Wires | Single | With cover and switch | .79 | .69 | .59 | .49 |
| 216320CX | BH-441-1A | 8 | 4-AAA | Wires | Single | | .99 | .89 | .84 | .79 |
| 216338CX | SBH-441-AS | 13 | 4-AAA | Wires | Single | With cover and switch | 1.39 | 1.15 | 1.05 | .95 |
| 216346CX | BH-211-A | 1 | 1-C | Wires | Single | | .62 | .56 | .51 | .44 |
| 216354CX | BH-221-A | 3 | 2-C | Wires | Single | | 1.09 | .99 | .94 | .84 |
| 216362CX | BH-242-1A | 11 | 4-C | Wires | Single | | 1.39 | 1.29 | 1.09 | .99 |
| 216371CX | BH-111-1A | 1 | 1-D | Wires | Single | | .69 | .59 | .54 | .49 |
| 216389CX | BH-121-1A | 3 | 2-D | Wires | Single | | .89 | .75 | .69 | .59 |
| 216397CX | BH-121-1B | 3 | 2-D | Snaps | Single | | .99 | .85 | .75 | .69 |
| 216400CX | BH-142-A | 11 | 4-D | Wires | Single | | 1.19 | .95 | .85 | .75 |
| 216418CX | BH-143-1A | 8 | 4-D | Wires | Single | | 1.15 | .89 | .81 | .74 |
| 216426CX | BH-9V-A | 2 | 1-9V | Wires | Single | | .79 | .69 | .64 | .59 |
| 216434CX | BH-511-1A | 1 | 1-N | Wires | Single | | .69 | .59 | .54 | .49 |
| 236996CX | 103 | 18 | 1-CR2032 | PC Mount | Coin Cell | | .95 | .85 | .79 | .69 |
| 38535CX | 2S2032 | 18 | 1-CR2032 | PC Mount | Coin Cell | | .59 | .49 | .35 | .25 |
| 38543CX | 2S2325 | 18 | 1-CR2354 or 2-CR2325 | PC Mount | Coin Cell | | .99 | .89 | .69 | .49 |

* Battery holder used in many personal computers



Compact Battery Tester

Simply lift the swivel arm of this battery tester and place your battery between the contacts and it will provide you a voltage measurement of your batteries. Tests AAA, AA, C, D, 9V, and button cell batteries.

| Part No. | Description | Price |
|----------|------------------------|--------|
| 239556CX | Compact battery tester | \$4.99 |



9-Volt Battery Snaps and Clip

- Use with standard "9 volt" batteries
- Fully insulated; contacts are nickel-plated brass
- Leads are color-coded, stripped and pre-tinned
- Snap: male outer dia. = 0.225" • Female inner dia.: 0.215"

* 10 piece minimum

| Part No. | Fig. | Description | Dimensions (in.) | | | Pricing | | | |
|----------|------|-----------------------------------|------------------|-----|-----|---------|-------|-------|-------|
| | | | L | W | H | 1 | 10 | 100 | 1000 |
| 11279CX | 1 | 3", 26 AWG, 6 prong battery snap | 1.0 | .50 | — | \$.25 | \$.22 | \$.19 | \$.16 |
| 105793CX | 2 | Battery holder clip | .63 | .71 | 1.2 | .28 | .23 | .16 | .14 |
| 109153CX | 3 | 6", 26 AWG, 6 prong battery snap | 1.0 | .50 | — | * | .17 | .15 | .135 |
| 101469CX | 3 | 10", 26 AWG, 6 prong battery snap | 1.0 | .50 | — | .29 | .25 | .21 | .14 |
| 216451CX | 4 | 6", 26 AWG, 6 prong battery snap | 1.0 | .50 | — | .34 | .30 | .20 | .18 |

Fig. 1



Fig. 2



Fig. 3



Fig. 4



Get a Charge and Keep It!

I remember getting excited when I first recharged dry cell batteries. As a kid, I had to pay for my own batteries, chargers were cheap, and my parents paid for electricity.

Later, I used NiCADs. But the NiCADs just didn't last long enough, and their voltage was lower. Now the new term is NiMH. High-capacity, rechargeable and lacking much of the "memory" NiCADs possess, these batteries and their accompanying chargers are a great solution to unwieldy battery expenses. Try a set today. This is the third generation of consumer-rechargeable batteries and you may choose to never go back!

Practical Practices
Money Saving Tips for the Engineer



ATX 150 Watt

- Output:
 - +3.3V @ 6A
 - +5V @ 10A
 - +12V @ 6A
 - +5VSB @ 0.72A
 - 5V @ 0.2A
 - 12V @ 1A
- 20-pin ATX form factor
- Mating input connector: suggest using P/N 38050CX
- power cord, pg 156 – not included
- Input voltage: 115/230VAC @ 50-60Hz (auto switching)
- Power on/off switch • Built-in fan



| Part No. | Product No. | Description | 1 | 10 | 25 |
|----------|-------------|-------------|---------|---------|---------|
| 196189CX | MPW-6150F | 150W | \$34.95 | \$29.75 | \$22.29 |

AT 200 Watt

- Output:
 - +5V @ 20A
 - +12V @ 8A
 - 5V @ 0.5A
 - 12V @ 0.5A
- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- AT compatible connectors
- Mating input connector: 3-prong AC receptacle with 6' power cord
- Built-in fan



Includes: 6' power cord

| Part No. | Product No. | Description | 1 | 10 | 25 |
|----------|-------------|-------------|---------|---------|---------|
| 172822CX | AA-230 | 200W | \$49.95 | \$44.96 | \$40.46 |

ATX 250 Watt + 250 Watt Redundant

- Output:
 - +3.3V @ 15A
 - +5VSB @ 1.5A
 - +5V @ 30A
 - +12V @ 14A
 - 5V @ 0.5A
 - 12V @ 1A
- Hot swappable; power fail alarm
- Input volt.: 90-264VAC @ 47-63Hz (auto ranging)
- Internal OR-ing diode for redundant operation
- Built-in fan • 20-pin ATX form factor



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 201443CX | EPR2251 | \$81.60 | \$74.18 | \$67.44 |

SALE

150 to 400-Watt PC Power Supplies

Quantity
SAVE

| Part Number | Mfr. | Product Number | Power (W) | Output (VDC/A) | Input (VAC @ Hz) | Input Connector (Mating Connector/Cord) | Output Conn. (Mating Conn.) | Certification | Size (L" x W" x H") | Wt. (lbs.) | Pricing | | |
|-------------|----------------|----------------|--------------|--|--------------------------------|---|-----------------------------|---------------|---------------------|------------|----------|---------|---------|
| | | | | | | | | | | | 1 | 10 | 25 |
| 201435CX | Xtreme Power | EPA400 | 400 | +3.3/33, +5/45, +12/15, +5VSB/1, -5/1, -12/1 | 115/230 @ 47-63 switchable | 3-prong AC receptacle with 6' power cord | ATX | UL/CSA/TUV/CE | 5.6 x 5.9 x 3.4 | 5.0 | \$109.99 | \$89.95 | \$59.95 |
| 155539CX | American Media | JE2033† | 300 | +3.3/14, +5/30, +12/8, +5VSB/1.5, -5/0.5, -12/0.5 | 115/230 @ 50-60 switchable | 3-prong AC receptacle with 6' power cord | ATX-13 | UL/CSA/TUV | 5.9 x 5.5 x 3.4 | 3.7 | 69.95 | 62.95 | 56.95 |
| 155811CX | — | JE5300 | 300 | +3.3/14, +5/25, +12/12, +5VSB/0.8, -5/0.5, -12/0.5 | 115/230 @ 50-60 switchable | 3-prong AC receptacle with 6' power cord | ATX | UL/CSA/TUV | 5.9 x 5.5 x 3.2 | 4.1 | 69.95 | 62.99 | 56.69 |
| 236929CX | Sunpower | SAP6300 | 300 | +3.3/25, +5/30, +12/12, -5/0.5, -12/1, +5VSB/1 | 115/230 @ 50-60 auto sense | 3-prong AC receptacle with 6' power cord | ATX | UL/CUL/TUV/CE | 5.5 x 5.9 x 3.4 | 4.1 | 54.95 | 49.45 | 44.49 |
| 201443CX | Etasis | EPR2251* | 250/250 Dual | +3.3/15, +5/30, +12/14, +5VSB/1.5, -5/0.5, -12/1 | 90-264 @ 47-63 auto ranging | 3-prong AC receptacle with 6' power cord | ATX | UL/CUL/TUV/CE | 7.0 x 3.4 x 9.0 | 2.6 | 74.18 | 74.18 | 67.44 |
| 205938CX | TGR | FA250N16 | 250 | +3.3/14, +5/25, +12/10, +5VSB/3, -5/0.5, -12/1 | 115/230 @ 50-60 switchable | 3-prong AC receptacle (P/N 38050CX, pg 156) | ATX | UL/CUL/TUV/CE | 5.5 x 6.0 x 3.5 | 3.5 | 21.95 | 19.39 | 17.35 |
| 152194CX | American Media | JE2031 | 250 | +3.3/14, +5/25, +12/10, +5VSB/1.5, -5/0.5, -12/0.5 | 115/230 @ 50-60 switchable | 3-prong AC receptacle with 6' power cord | ATX | UL/CSA/TUV | 6.0 x 5.5 x 3.4 | 3.5 | 49.95 | 44.99 | 40.49 |
| 152514CX | High Power | JE8250 | 250 | +3.3/16, +5/25, +12/10, +5VSB/1.5, -5/0.5, -12/0.5 | 115/230 @ 50-60 switchable | 3-prong AC receptacle with 6' power cord | ATX | UL/CSA/TUV | 5.5 x 5.9 x 3.4 | 3.3 | 49.95 | 44.99 | 40.49 |
| 196437CX | Hipro | HP235NLXAK | 235 | +3.3/14, +5/25, +12/8, +5VSB/0.1, -5/0.5, -12/0.5 | 115/230 @ 50-60 switchable | 3-prong AC receptacle (P/N 38050CX, pg 156) | ATX | UL/CSA/TUV/CE | 5.5 x 5.9 x 3.2 | 3.2 | 24.99 | 21.25 | 15.35 |
| 196111CX | SPI | FSP23560GT | 235 | +3.3/14, +5/22, +12/8, +5VSB/0.8, -5/0.3, -12/0.8 | 100/240 @ 50-60 switchable | 3-prong AC receptacle (P/N 38050CX, pg 156) | ATX | UL/CUL/TUV/CE | 5.6 x 5.9 x 3.4 | 3.2 | 31.95 | 28.76 | 25.89 |
| 202788CX | Enhance | SFX2015 | 150 | +3.3/7, +5/12, +12/5, +5VSB/0.8, -5/0.2, -12/0.3 | 115/240 @ 47-63 switchable | 3-prong AC receptacle (P/N 38050CX, pg 156) | ATX | UL/CUL/TUV/CE | 5.9 x 3.6 x 3.4 | 2.1 | 29.95 | 26.96 | 24.26 |
| 196189CX | Emacs | MPW-6150F* | 150 | +3.3/6, +5/10, +12/6, +5VSB/0.72, -5/0.2, -12/1 | 115/230 @ 50-60 switchable | 3-prong AC receptacle (P/N 38050CX, pg 156) | ATX | UL/CUL/TUV/CE | 7.5 x 4.0 x 1.6 | 2.5 | 34.95 | 29.75 | 22.29 |
| 132185CX | APS | JE1035 | 300 | +3.3/28, +5/30, +12/10, -5/1, -12/1 | 110/220 @ 50-60 switchable | 3-prong AC receptacle with 6' power cord | IBM AT | UL/CSA/TUV | 5.5 x 5.9 x 3.4 | 4.7 | 89.95 | 85.49 | 81.25 |
| 205639CX | Sunpower | SQ-3005 | 300 | +5/30, +12/12, -5/0.5, -12/0.5 | 115/230 @ 50-60 auto switching | 3-prong AC receptacle with 6' power cord | AT | UL/CSA/VDE | 5.6 x 5.9 x 3.4 | 4.1 | 49.95 | 44.96 | 40.46 |
| 174465CX | Logic Concept | LC250C | 250 | +5/20, +12/10, -5/0.5, -12/0.5 | 110/220 @ 50-67 switchable | 3-prong AC receptacle with 6' power cord | AT | UL/CSA/TUV/CE | 5.5 x 5.9 x 3.4 | 2.0 | 54.95 | 49.46 | 44.51 |
| 233525CX | Sparkle Power | SPI-230G | 230 | +5/23, +12/9, -5/0.5, -12/0.5 | 115/230 @ 50-60 switchable | 3-prong AC receptacle (P/N 38050CX, pg 156) | AT | UL/CSA/TUV | 5.9 x 5.5 x 3.4 | 2.0 | 34.95 | 31.45 | 28.29 |
| 200694CX | Compaq | DPS-200PB-38 | 200 | +5/22, +12/7, -5/0.15, -12/0.15 | 110/230 @ 50-60 switchable | 3-prong AC receptacle (P/N 38050CX, pg 156) | AT | UL/CSA/TUV | 5.5 x 5.9 x 3.5 | 2.8 | 10.88 | 9.89 | 8.99 |
| 172822CX | Mean Well | AA-230* | 200 | +5/20, +12/8, -5/0.5, -12/0.5 | 115/230 @ 50-60 switchable | 3-prong AC receptacle with 6' power cord | AT | CSA/TUV/CE | 6.0 x 4.6 x 3.4 | 2.6 | 49.95 | 44.96 | 40.46 |

* See photo above

† Pentium 4 rated

Check out our complete line of Power Products on Pages 118-160.



Motherboards, CPUs and Heat Sinks

Intel® Processor-Based Motherboards

These Intel® motherboards provide the ultimate in speed, compatability and confidence, making them ideal for desktop systems and embedded solutions alike. Pentium® 4 and Celeron® based configurations.



◆ These products ship from a separate warehouse. Each warehouse will accrue separate shipping charges.

| Jameco Part No. | Model No. | Mfr. | Internal Name | Board Style | Processor Support | Support FSB (MHz) | Chipset | Graphics | Memory Type (SDRAM) | Max. Mem/ Slots | Expansion Slots | | Audio | USB Ports | HDD | On-Board LAN | Board Size | Weight (lbs) | Warranty | Jameco Part No. | Pricing | |
|-----------------|----------------|-------|---------------|---|---------------------------|-------------------|---------|--------------------------|---------------------|-----------------|---|---|--|-----------------------------|--|--|---------------|--------------|--------------|-----------------|----------|----------|
| | | | | | | | | | | | | | | | | | | | | | 1 | 10 |
| 285106CX | BOXD875PBZLK ◆ | Intel | Bonanza | microATX or µATX | Pentium® 4 | 800/533 | i875P | None | DDR 400/333 | 4GB / 4 | 5 PCI 32bit/33MHz AGP 8x/4x | ↔ | None | USB 2.0 6 Back / 2 Front | 2-ports SATA150 (1.5Gb/s) RAID 0; 2-ports ATA 100 | Intel® PRO/1000CT (Gigabit) | 11.52" x 9.6" | 2.9 | 3 years ltd. | 285106CX | \$225.59 | \$214.29 |
| 285093CX | BOXD865PERLL ◆ | Intel | Rock Lake | microATX or µATX | Pentium® 4/ Celeron® | 800/533/400 | i865P | None | DDR 400/333/266 | 4GB / 4 | 5 PCI 32bit/33MHz AGP 8x/4x | | Full 6-channel surround sound + optical output with jack sensing | USB 2.0 4 Back / 4 Front | 2-ports SATA150 (1.5Gb/s) RAID 0; 2-ports ATA 100 | PRO/100 (10/100) | 12" x 9.6" | 3.1 | 3 years ltd. | 285093CX | 164.15 | 155.95 |
| 285077CX | BOXD865GBFL ◆ | Intel | Bayfield | microATX or µATX Celeron® | Pentium® 4/ | 800/533/400 | i865G | Intel Extreme Graphic 2 | DDR 400/333/266 | 4GB / 4 | 6 PCI 32bit/33MHz AGP 8x/4x | | Flexible 6-channel audio with jack sharing | USB 2.0 4 Back / 4 Front | 2-ports SATA150 (1.5Gb/s) 2-ports ATA 100 | PRO/100 (10/100) | 11.6" x 9.6" | 2.8 | 3 years ltd. | 285077CX | 144.99 | 137.79 |
| 285085CX | BOXD865GLCL ◆ | Intel | La Crosse | microATX or µATX Celeron® | Pentium® 4/ | 800/533 | i865G | Intel Extreme Graphic 2 | DDR 400/333 | 4GB / 4 | 3 PCI 32bit/33MHz AGP 8x/4x | | Full 6-channel with jack sensing | USB 2.0 4 Back / 4 Front | 2-ports SATA150 (1.5Gb/s) 2-ports ATA 100 | PRO/100 (10/100) | 9.6" x 9.6" | 2.5 | 3 years ltd. | 285085CX | 142.09 | 134.95 |
| 285122CX | BOXD865GRHLK ◆ | Intel | Rock Harbor | microATX or µATX | Pentium® 4/ Celeron® | 800/533/400 | i865G | Intel Extreme Graphic 2 | DDR 400/333/266 | 4GB / 4 | 3 PCI 32bit/33MHz AGP 8x/4x | ↔ | Integrated AC97 audio | USB 2.0 4 Back / 4 Front | 2-ports SATA150 (1.5Gb/s) 2-ports ATA 100 | Intel® PRO/1000CT (Gigabit) | 9.6" x 9.6" | 2.5 | 3 years ltd. | 285122CX | 177.95 | 168.35 |
| 285114CX | BOXD845GVSRL ◆ | Intel | Seabreeze | ATX | Pentium® 4/ Celeron® | 533/400 | i845GV | Intel Extreme Graphic | DDR 333/266 | 2 GB / 2 | 3 PCI 32bit/33MHz | | Integrated AC97 audio | USB 2.0 4 Back / 4 Front | 2-ports SATA150 (1.5Gb/s) 2-ports ATA 100 | Intel® PRO/100 (10 / 100) | 9.6" x 8.2" | 2.1 | 3 years ltd. | 285114CX | 83.45 | 79.29 |
| 285131CX | S875WP1 ◆ | Intel | Winter Park | ATX | Pentium® 4 | 533 | i875P | ATI RageXL with 8MB mem. | DDR 400/333/266 | 4GB / 4 | 3 x 32bit/33MHz AGP 8x/4x | | None | USB 2.0 4 Back / 2 Front | 2-ports SATA150 (1.5Gb/s) 2-ports ATA 100 | PRO/1000 XT Server Network PRO 100 Server Connections | 12" x 9.6" | 2.7 | 3 years ltd. | 285131CX | 279.95 | 266.25 |
| 285157CX | SE7505VB2 ◆ | Intel | Vero Beach | SSI EEB 3.0 (fits many ATX-compliant tower chassis) | Dual Xeon™ | 533/400 | iE7505 | ATI RageXL with 8MB mem. | DDR 200/266 | 8GB / 4 | 2 x 64bit/100MHz PCI-X 1 x 64bit/66MHz PCI-X 2 x 32bit/33MHz; AGP 8x/4x | | None | USB 2.0 6 Back / 2 Front | 2-ports SATA150 (1.5Gb/s) 2-ports ATA 100 | PRO/1000 MT Server Network PRO 100 Server Connections | 12" x 13" | 3.8 | 3 years ltd. | 285157CX | 573.25 | 544.59 |
| 218835CX | SY-718A | Soyo | — | — | Pentium® III/ Celeron® | 66/100/133 | FW-828 | — | PC100/133 | 512MB/3 | 6 PCI 32bit/1 AGP | ↔ | None | USB 1.0 4 on board | 2-ports EIDE | — | 12" x 8.8" | 3 | 3 years ltd. | 218835CX | 59.95 | 55.95 |



Intel® Desktop Processors

| Part No. | Product Name | Part Number | Speed (GHz) | FSB (MHz) | Cache | Package | 1 | 10 |
|----------|-----------------------------|-----------------------|-------------|-----------|----------|---------|----------|----------|
| 283303CX | Pentium® 4 ^{†*} | BX80532PG3400D ◆ 3.4 | 800 | 512kB | mPGA-478 | .... | \$607.59 | \$577.19 |
| 283258CX | Pentium® 4 ^{†**} | BX80532PG3200F ◆ 3.2 | 800 | 2MB | mPGA-478 | .. | 1,329.95 | 1,264.25 |
| 283274CX | Pentium® 4 ^{†*} | BX80546PG3200E ◆ 3.2 | 800 | 1MB | mPGA-478 | ..... | 409.85 | 389.35 |
| 283311CX | Pentium® 4 ^{†*} | BX80532PG3200D ◆ 3.2 | 800 | 512kB | mPGA-478 | ..... | 409.95 | 389.45 |
| 283338CX | Pentium® 4 ^{†*} | BX80532PE3066D ◆ 3.06 | 533 | 512kB | mPGA-478 | ..... | 324.99 | 308.75 |
| 283320CX | Pentium® 4 ^{†*} | BX80532PG3000D ◆ 3.0 | 800 | 512kB | mPGA-478 | ..... | 325.09 | 308.89 |
| 283282CX | Pentium® 4 ^{†*} | BX80546PG3000E ◆ 3.0 | 800 | 1MB | mPGA-478 | ..... | 324.99 | 308.15 |
| 283291CX | Pentium® 4 ^{†*} | BX80532PG2800E ◆ 2.8 | 800 | 1MB | mPGA-478 | ..... | 266.55 | 280.55 |
| 283346CX | Pentium® 4 ^{†*} | BX80532PG2800D ◆ 2.8 | 800 | 512kB | mPGA-478 | ..... | 266.29 | 252.99 |
| 283354CX | Pentium® 4 ^{†*} | BX80546PE2800D ◆ 2.8 | 533 | 512kB | mPGA-478 | ..... | 244.39 | 232.15 |
| 283362CX | Pentium® 4 ^{†*} | BX80532PE2667D ◆ 2.66 | 533 | 512kB | mPGA-478 | ..... | 244.29 | 232.09 |
| 283371CX | Pentium® 4 ^{†*} | BX80532PG2600D ◆ 2.6 | 800 | 512kB | mPGA-478 | ..... | 266.29 | 252.99 |
| 283418CX | Intel Celeron® [†] | BX80532RC2600B ◆ 2.6 | 400 | 128kB | mPGA-478 | ..... | 131.56 | 124.99 |
| 283389CX | Pentium® 4 ^{†*} | BX80532PE2533D ◆ 2.53 | 533 | 512kB | mPGA-478 | ..... | 244.39 | 232.19 |
| 283426CX | Intel Celeron® [†] | BX80532RC2500B ◆ 2.5 | 400 | 128kB | mPGA-478 | ..... | 116.99 | 111.15 |
| 283397CX | Pentium® 4 ^{†*} | BX80532PG2400D ◆ 2.4 | 800 | 512kB | mPGA-478 | ..... | 239.75 | 227.75 |
| 283400CX | Pentium® 4 ^{†*} | BX80532PE2400D ◆ 2.4 | 533 | 512kB | mPGA-478 | ..... | 188.49 | 179.09 |
| 283434CX | Intel Celeron® [†] | BX80532RC2400B ◆ 2.4 | 400 | 128kB | mPGA-478 | ..... | 102.59 | 97.45 |
| 283442CX | Intel Celeron® [†] | BX80532RC2200B ◆ 2.2 | 400 | 128kB | mPGA-478 | ..... | 102.35 | 97.25 |
| 283451CX | Intel Celeron® [†] | BX80532RC2000B ◆ 2.0 | 400 | 128kB | mPGA-478 | ..... | 94.99 | 89.99 |

◆ These products ship from a separate warehouse. Each warehouse will accrue separate shipping charges.
† Includes active heat sink; * Hyper-threading technology; ** Extreme edition processor w/ hyper-threading technology

Legacy Processors

Pentium III/Pentium II/Pentium MMX/Pentium

| Part No. | Description | Speed (MHz) | Package | 1 | 10 |
|----------|--------------------------|-------------|---------|------------------------------|----------|
| 183118CX | Pentium® III processor | 600 | Slot 1 | \$469.95 \$117.59 | \$111.75 |
| 183100CX | Pentium® II processor | 400 | Slot 1 | \$424.99 99.95 | 94.95 |
| 151651CX | Pentium® II processor | 300 | Slot 1 | \$409.99 89.95 | 85.45 |
| 190060CX | Pentium® II w/ heat sink | 233 | Slot 1 | 89.95 | 79.95 |
| 150501CX | Pentium MMX® processor | 233 | 376/PGA | 69.95 | 62.95 |
| 140054CX | Pentium MMX® processor | 200 | 376/PGA | 49.95 | 37.45 |
| 130841CX | Pentium® processor | 166 | 296/PGA | 49.95 | 37.45 |
| 130833CX | Pentium® processor | 133 | 296/PGA | 39.95 | 29.95 |
| 118421CX | Intel 486DX2 processor | 66 | 168/PGA | 19.95 | 14.96 |



Color Code Legend
New Sale Qty.Save Pull Closeout

New Lower Prices
Marked in Orange



285085CX



285122CX



285114CX



285157CX



218835CX



Hard Disk Drives



3.5" LP UATA/100 Disk Drives

| Part No. | Model No. | Capacity | Interface | RPM | Seek (ms) | Cache (MB) | Warranty | 1 | 10 |
|----------|-----------------|----------|-----------|------|-----------|------------|-------------|----------|----------|
| 284891CX | ST3200822A ◆ | 200GB | UATA/100 | 7200 | 8.5 | 8 | 3 yrs .. | \$198.49 | \$188.59 |
| 284867CX | ST3160021A ◆ | 160GB | UATA/100 | 7200 | 8.5 | 2 | 1 yr | 148.65 | 141.19 |
| 284875CX | ST3160021A-EW ◆ | 160GB | UATA/100 | 7200 | 8.5 | 2 | 3 yrs | 152.29 | 144.69 |
| 284883CX | ST3160023A ◆ | 160GB | UATA/100 | 7200 | 8.5 | 8 | 3 yrs | 159.95 | 152.35 |
| 284824CX | ST3120022A ◆ | 120GB | UATA/100 | 7200 | 8.5 | 2 | 1 yr | 128.15 | 121.75 |
| 284832CX | ST3120022A-EW ◆ | 120GB | UATA/100 | 7200 | 8.5 | 2 | 3 yrs | 131.75 | 125.19 |
| 284859CX | ST3120026A ◆ | 120GB | UATA/100 | 7200 | 8.5 | 8 | 3 yrs | 136.89 | 129.99 |
| 284808CX | ST380011A ◆ | 80GB | UATA/100 | 7200 | 8.5 | 2 | 1 yr | 103.89 | 98.69 |
| 284816CX | ST380011A-EW ◆ | 80GB | UATA/100 | 7200 | 8.5 | 2 | 3 yrs | 107.55 | 102.15 |
| 284787CX | ST340014A ◆ | 40GB | UATA/100 | 7200 | 8.5 | 2 | 1 yr | 82.95 | 79.19 |
| 284795CX | ST340014A-EW ◆ | 40GB | UATA/100 | 7200 | 8.5 | 2 | 3 yrs | 86.99 | 82.69 |
| 284761CX | ST340015A ◆ | 40GB | UATA/100 | 5400 | 12.5 | 2 | 1 yr | 78.89 | 74.95 |
| 284779CX | ST340015A-EW ◆ | 40GB | UATA/100 | 5400 | 12.5 | 2 | 3 yrs | 81.15 | 77.05 |
| 284744CX | ST320014A ◆ | 20GB | UATA/100 | 5400 | 12.7 | 2 | 1 yr | 72.29 | 68.69 |
| 284752CX | ST320014A-EW ◆ | 20GB | UATA/100 | 5400 | 12.7 | 2 | 3 yrs | 75.95 | 72.15 |

3.5" LP SATA/150 Disk Drives

| Part No. | Model No. | Capacity | Interface | RPM | Seek (ms) | Cache (MB) | Warranty | 1 | 10 |
|----------|-----------------|----------|-----------|------|-----------|------------|-------------|----------|----------|
| 284939CX | ST3160023AS ◆ | 160GB | SATA/150 | 7200 | 8.5 | 8 | 3 yrs .. | \$174.99 | \$166.29 |
| 284921CX | ST3120026AS ◆ | 120GB | SATA/150 | 7200 | 8.5 | 8 | 3 yrs | 147.15 | 139.79 |
| 284904CX | ST380013AS ◆ | 80GB | SATA/150 | 7200 | 8.5 | 8 | 1 yr | 111.99 | 106.39 |
| 284912CX | ST380013AS-EW ◆ | 80GB | SATA/150 | 7200 | 8.5 | 8 | 3 yrs | 114.95 | 109.85 |

2.5" UATA/100 Mobile Disk Drives

| Part No. | Model No. | Capacity | Interface | RPM | Seek (ms) | Cache (MB) | Warranty | 1 | 10 |
|----------|------------|----------|-----------|------|-----------|------------|-------------|----------|----------|
| 284955CX | ST94011A ◆ | 40GB | UATA/100 | 5400 | 12 | 2 | 3 yrs .. | \$173.19 | \$164.55 |
| 284963CX | ST94811A ◆ | 40GB | UATA/100 | 5400 | 12 | 2 | 3 yrs | 180.55 | 171.55 |
| 284947CX | ST92011A ◆ | 20GB | UATA/100 | 5400 | 12 | 2 | 3 yrs | 120.35 | 114.35 |

◆ These products ship from a separate warehouse. Each warehouse will accrue separate shipping charges.

Jameco's Low-Price Guarantee

We'll match the print advertised price of any like product. It's that simple!

Color Code Legend
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Motherboards, Drives and Memory

Legacy 3.5" Hard Disk Drives*

| Part No. | Capacity | Description | Warranty | 1 | 10 |
|----------|----------|------------------------------------|--------------|--------------------------|---------|
| 283231CX | 20.0GB | Ultra ATA/133 | 3 mos. | \$74.95 | \$71.29 |
| 200678CX | 15.0GB | IDE | 3 mos. | \$79.00 69.95 | 62.95 |
| 200660CX | 13.0GB | IDE (ATA-4) | 3 mos. | \$87.15 64.95 | 58.45 |
| 200651CX | 10.2GB | IDE | 3 mos. | \$78.65 59.95 | 56.95 |
| 151044CX | 4.3GB | EIDE/Ultra DMA33 | 1 year | 49.95 | 45.95 |
| 146333CX | 2.5GB | EIDE/Fast ATA-2 | 1 year | \$69.95 49.95 | 44.95 |
| 146325CX | 1.7GB | IDE/Fast ATA-2 | 1 year | 39.95 | 35.95 |
| 124978CX | 1.27GB | IDE | 1 year | \$69.95 35.95 | 32.35 |
| 118949CX | 850MB | IDE | 1 year | 59.95 | 53.95 |
| 115764CX | 425MB | IDE | 3 mos. | 59.95 | 53.95 |
| 189914CX | 9.1GB | Ultra-wide SCSI SCA | 3 mos. | \$60.00 49.95 | 44.95 |
| 197579CX | 4.0GB | Fast SCSI-II (1.5" HH form factor) | 3 mos. | \$25.50 29.35 | 26.69 |

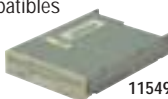
* Manufacturers may vary and capacity may exceed specification

DIMM and SIMM Memory

| Part No. | Mfr. Cross Ref. No. | Capacity | Description | Config. | Pins | 1 | 10 |
|----------|------------------------|----------|---------------------|-----------|----------|----------|----------|
| 285000CX | KVR400X64C3A/1G | 1024MB | DDR400 ♠* | 128M x 64 | 184 | \$498.49 | \$473.55 |
| 284998CX | KVR400X64C25/512 | 512MB | DDR400 ♠* | 64M x 64 | 184 .. | 166.35 | 157.99 |
| 285026CX | KVR266X64C25/512 | 512MB | DDR266 ♠* | 64M x 64 | 184 .. | 154.99 | 147.29 |
| 285018CX | KVR266X64C25/256 | 256MB | DDR266 ♠* | 32M x 64 | 184 | 85.89 | 81.59 |
| 285042CX | KVR133X64C3/256 | 256MB | PC133 ♠* | 32M x 64 | 168 | 90.65 | 86.15 |
| 285034CX | KVR133X64C3/128 | 128MB | PC133 ♠* | 16M x 64 | 168 | 49.45 | 46.99 |
| 148419CX | 16MBX64SDRAM | 128MB | 10ns Syn. DRAM DIMM | 16M x 64 | 168 | 65.95 | 59.95 |
| 148401CX | 8MBX64SDRAM | 64MB | 10ns Syn. DRAM DIMM | 8M x 64 | 168 | 28.50 | 26.95 |
| 148451CX | JEED07264 | 64MB | 60ns SIMM EDO | 16M x 32 | 72 | 29.95 | 28.45 |
| 148398CX | 4MBX64SDRAM | 32MB | 10ns Syn. DRAM DIMM | 4M x 64 | 168 | 16.95 | 15.95 |
| 148460CX | 8MBX36-60 | 32MB | 60ns SIMM | 8M x 36 | 72 | 39.95 | 36.99 |
| 148443CX | JEED07232 | 32MB | 60ns SIMM EDO | 8M x 32 | 72 | 43.95 | 39.59 |
| 75184CX | P364000-XX-6 | 16MB | 60ns SIMM | 4M x 36 | 72 | 21.95 | 20.15 |
| 130711CX | JEED07216 | 16MB | 60ns SIMM EDO | 4M x 32 | 72 | 11.35 | 10.35 |
| 75168CX | P364000-XX-7 | 16MB | 70ns SIMM | 4M x 36 | 72 | 24.95 | 22.55 |
| 75096CX | P362000-XX-6 | 8MB | 60ns SIMM | 2M x 36 | 72 | 21.99 | 19.99 |
| 130729CX | JEED07208 | 8MB | 60ns SIMM EDO | 2M x 32 | 72 | 9.95 | 7.45 |
| 75133CX | P361000-XX-6 | 4MB | 60ns SIMM | 1M x 36 | 72 | 12.95 | 11.65 |
| 41751CX | 421000A9B-70 | 1MB | 70ns SIMM | 1M x 9 | 30 | 3.95 | 3.45 |

1.44MB 3.5" Internal Floppy Disk Drives

- IBM PC/XT and higher compatibles
- Compatible with DOS versions 3.3 or higher
- Automatically determines if disk is high or low density
- Size: 4.0"W x 5.9"D x 1.0"H (actual drive size)
- Weight: 1.4 lbs.



115490CX

* Refurbished

| Part No. | Cross Ref. No. | Mfr. | Color | 1 | 10 |
|----------|----------------|-----------|----------|-------|------------------------------------|
| 224346CX | JU256A216P* | Panasonic | Gray | ..... | \$16.95 \$15.25 |
| 115490CX | FD235 | TEAC | Beige | ..... | 21.95 19.95 |
| 189165CX | — | Varies | Beige | ..... | 10.95 9.95 |
| 249367CX | MPF920-Z | Sony | Beige | ..... | 16.95 15.99 |
| 200686CX | — | Varies | No Bezel | ..... | \$4.43 3.75 3.39 |

Internal IDE CD-ROM Drives

- 5.25" half-height design
- One-year warranty
- Manufacturer varies



189448CX

Includes: Audio cable

| Part No. | Speed | Buffer | kB/sec. | 1 | 10 |
|----------|-------|--------|---------|-------|---|
| 149307CX | 24x | 256kB | 3600 | ..... | \$29.95 \$27.95 \$24.95 |
| 189051CX | 32x | 128kB | 4800 | ..... | 29.95 25.95 |
| 189069CX | 40x | 128kB | 6000 | ..... | \$34.95 32.95 27.95 |
| 189077CX | 48x | 128kB | 7200 | ..... | 35.95 30.95 |
| 189448CX | 56x | 128kB | 8400 | ..... | 39.95 29.95 |

CD-ROM Audio Cables



127546CX

168612CX

| Part No. | Connection from Sound Blaster to | Length | 1 | 10 | 50 |
|----------|----------------------------------|--------|--------|--------|-------------|
| 127546CX | Sony/MPC2 | 25" | \$2.95 | \$2.65 | \$2.29 |
| 168612CX | Universal | 18" | 4.95 | 4.45 | 3.55 |

CD Laser Lens Cleaner

- 6-language voice guide instructions
- Single brush wet-dry cleaner
- Removes accumulated oils, dust and debris from CD optical lens



| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------------|--------|--------|--------|
| 228531CX | CD laser lens cleaner | \$9.99 | \$8.99 | \$7.39 |

CD Accessories



249447CX

208493CX

208514CX

| Part No. | Description | 1 | 5 | 10 |
|----------|---------------------------|---------|---------|---------|
| 249447CX | 48x/700MB/80 min./100 pk. | \$29.95 | \$28.45 | \$28.45 |
| 172179CX | Single jewel case | ..... | .40 .36 | .31 |
| 208514CX | Paper envelope 25 pk. | 2.49 | 2.25 | 1.99 |
| 208493CX | Slim asst. color 10 pk. | 3.95 | 3.75 | 3.49 |

Business Card CD-R Kit

Differentiate yourself or your business from others. This kit includes 12 50MB capacity CD-R and sleeves, 16 labels and label design software. A great way to promote your business in trade shows and exhibits. Easy to carry and cost-effective.



| Part No. | Description | Price |
|----------|------------------------|--------|
| 249308CX | Business Card CD-R kit | \$5.95 |

Back Panel PC Cooling Fan

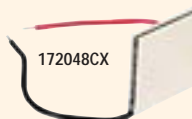
- Type: sleeve axial fan
- Back panel mountable
- Operating volt.: 12VDC @ 140mA
- Airflow: 43 CFM • Noise ratio: 26dBA
- 10.5" wire with 4-pin Molex power connector • Power: 1.7W
- Size: 4.3"L x 3.5"H x 1.1"Thick
- One-year warranty



| Part No. | Description | 1 | 10 | 50 |
|----------|---------------|---------|---------|---------|
| 152240CX | PC cooler fan | \$19.95 | \$17.95 | \$15.95 |

Thermoelectric Cooler Chips

- Cools down to -30°C (dependent on external temp.)
- Heat or cool by changing direction of current
- 20 AWG wire leads, 4" long
- T max. = 60°C



172048CX

| Part No. | Mfr. | Cross Ref. No. | 1 | 10 |
|----------|-------|----------------|---------|---------|
| 172030CX | TEC30 | ..... | \$19.95 | \$17.95 |
| 172048CX | TEC40 | ..... | 25.95 | 22.95 |
| 172056CX | TEC50 | ..... | 33.75 | 29.35 |

* Couples: # of P&N type semiconductor pairs connected electrically in series

Front Panel Access Ports

Enjoy easy up front access to all your most used ports, including USB, IEEE 1394, audio, and serial ports, without moving the PC.

208004CX: 2 USB; 1 IEEE 1394; Line-In; Line-Out; RS232 (9-pin male)

213532CX: 4 USB; Line-In; Line-Out



Tower not included

| Part No. | Description | 1 | 10 |
|----------|------------------|---------|---------|
| 208004CX | Front panel port | \$34.95 | \$32.45 |
| 213532CX | Front panel port | 18.95 | 16.95 |

PCMCIA Card Drive For Desktop PC

Now you can have a PCMCIA drive on your desktop PC. Supports SRAM cards, FLASH cards, LAN cards and FAX/MODEM cards.

- Jumper selectable for 4 drives
- Supports DOS 5.0 or later, Windows® 3.1 or later
- Supports Type I/II/III PCMCIA cards



Tower not included

| Part No. | Description | 1 | 10 |
|----------|--------------|---------|---------|
| 210999CX | PCMCIA drive | \$49.95 | \$43.95 |

Mounting Kits



180857CX

117217CX

32088CX

| Part No. | Mfr. | Cross Ref. No. | Description | Wt. (lbs.) | 1 | 10 | 25 |
|----------|-------|----------------|--|------------|--------|--------|-------------|
| 180857CX | HDB35 | ..... | 3.5" hard drive mount kit (short) | 0.2 | \$4.95 | \$3.75 | \$2.65 |
| 117217CX | HDMK | ..... | 3.5" kit (w/ black & gray faceplates) | 0.6 | 7.95 | 6.79 | 5.09 |
| 32088CX | SMK | ..... | 3.5" to 5.25" mounting kit (beige faceplate) | 0.5 | 5.89 | 5.29 | 4.79 |

Removable IDE HDD Enclosure For 3.5" Drive Bay

- For quick drive swapping
- Power LEDs
- Keylock for security



196040CX

196040CX:

- Size: 5.8"W x 8.5"D x 1.5"H
- Weight: 1.2 lbs.

196031CX:

- Size: 4.1"W x 7.5"D x 1.6"H • Weight: 0.8 lbs.

Includes: Inner cable with IDE connector

| Part No. | Description | 1 | 10 | 25 |
|----------|------------------------|---------|---------|---------|
| 196040CX | IDE encl. w/ insert... | \$27.95 | \$20.95 | \$14.69 |
| 196031CX | Insert for 196040CX... | 19.95 | 16.99 | 12.99 |

Removable IDE HDD Enclosure For 5.25" Drive Bay

Easily remove a hard drive from your PC or workstation, safeguard your data and an ideal way to back-up data. Because rack kit is hot removable, you can remove your hard drive without shutting down your computer operations. Aluminum case transfers heat away from the drive for longer & more reliable drive life.



- 5.25" rack kit for 3.5" hard drives • Drive activity LED
- Built-in fan • Aluminum rack • Keylock for security

| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------|---------|---------|---------|
| 211035CX | Enclosure kit (IDE) | \$29.95 | \$26.95 | \$23.95 |

Removable IDE HDD Enclosure For 5.25" Drive Bay

- Supports DMA 66 hard drive
- Retaining lock mechanism
- 12VDC @ 50mA fan
- CFM rating: 5.6
- Size: 5.9"W x 8.7"D x 1.6"H
- Weight: 1.3 lbs.



Includes: Mounting hardware

| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------|-----------------------------------|----------------|----------------|
| 170608CX | Enclosure kit (IDE) | \$29.95 \$25.45 | \$22.89 | \$19.95 |

External IDE HDD Enclosure with Parallel Interface

An external HDD enclosure for IDE hard drives with a parallel port interface to be connected to a PC or laptop. No drivers needed. Windows® 98 and above will automatically detect hard disk drive.



- Parallel port interface
- Built-in fan and 110V power supply

Includes: Parallel cable and power cord

| Part No. | Description | 1 | 5 |
|----------|------------------------|---------|---------|
| 249316CX | HDD external enclosure | \$19.95 | \$15.95 |

Harman/Kardon Multimedia Amplified System

- 4.5W RMS per amplified speaker
- Transducer: 3" full range driver, magnetically shielded
- Freq. range: 90Hz to 20kHz
- Volume control, bass and treble control, LED indicator and headphone jack
- Size: 8.5"H x 4.5"W x 5.0"D • Weight: 4.7 lbs.

Includes: 16VAC @ 1A power supply

| Part No. | Description | 1 | 10 |
|----------|--------------------|--------|--------|
| 211001CX | H/K speaker system | \$9.49 | \$7.59 |

480-Watt Multimedia Speakers

- Input voltage: 120VAC
- 2 magnetically shielded speakers
- 2-channel stereo amplifier
- Push button type power switch with LED indicator
- Knob controls for volume, bass & treble
- Size: 5.5"W x 7.0"D x 9.1"H • Weight: 5.3 lbs.

| Part No. | Description | 1 | 10 |
|----------|---------------|---------|---------|
| 196066CX | 480W speakers | \$39.95 | \$35.95 |

World Famous Boston Acoustics Self-Amplified Speaker and Subwoofer System

The key to this 3-piece outstanding speaker system is the 2 1/2" satellite speakers that deliver rich mid and high frequency response. Using advanced computer modeling, Boston Acoustics designed drivers that reproduce seven audible octaves with remarkable accuracy and smoothness. The satellite speakers come with their own stand and MagnaGuard magnetic shielding to prevent video interference.

- Frequency response (±3dB): 56Hz – 20kHz
- Maximum sound pressure level: 104dB
- Cross over frequency: 240Hz
- Master volume/power & sub-woofer volume switch
- Satellite speaker size: 3.3"L x 3.3"W x 3.5"H
- Subwoofer speaker size: 7.8"L x 6.0"W x 7.0"H
- Weight: 6.0 lbs.

Includes: 12VAC @ 2A power supply

| Part No. | Description | 1 | 5 |
|----------|--------------------------|---------|---------|
| 213911CX | Speaker/subwoofer system | \$41.95 | \$37.75 |

Dragon 180-Watt Multimedia Speakers

- 2-Channel stereo amplifier
- Magnetically shielded
- Two 3" 4ohm full-range speakers
- Frequency response: 100Hz to 20kHz
- Front panel control for volume, power, 3.5mm mini stereo jack
- Size: 7.0"H x 3.0"W x 5.3"D
- Weight: 2.0 lbs.

Power requirements: 2-prong 110VAC input

| Part No. | Description | 1 | 10 | 25 |
|----------|---------------|---------|---------|---------|
| 277229CX | 180W speakers | \$17.45 | \$15.69 | \$14.09 |

Hands-Free Condenser Microphone

- Cord length: 8'
- Connector: 3.5mm male stereo plug
- Size: 1.9"L x 1.2"W x 0.3"H
- One-year warranty

| Part No. | Description | 1 | 10 | 50 |
|----------|-------------|--------|--------|--------|
| 135247CX | Microphone | \$4.49 | \$3.99 | \$3.65 |

Mice & Trackballs

PS/2 2-Button No-Tail Mouse

Perfect mouse for laptop and mobile power users. Extract cable to desired length in small spaces thus eliminating tangle and loose cables. Cable retracts into the body of the mouse for compact storage.

- Switch selectable from PS/2 to serial mouse
- Size: 4.5"L x 2.4"W x 1.1"H

Includes: PS/2 to serial adapter, retractable RJ11 modem cable, and carrying case

| Part No. | Description | 1 | 10 |
|----------|-------------|--------|--------|
| 213330CX | PS/2 mouse | \$4.95 | \$4.50 |

QTRONIX. USB or PS/2 3-Button Optical Wheel Mouse

- Ergonomic style 3-button optical wheel mouse
- High tech optical sensor for all surface types
- Size: 3.9"L x 2.3"W x 1.5"H
- Weight: 0.2 lbs.

System requirements: IBM PC or compatible, Windows® 98/2000/XP, available PS/2 or USB port

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 199591CX | LYNX-LVII | \$29.95 | \$26.95 | \$24.25 |

Jameco Special Values!



Sale items highlighted in yellow.

Great quantity discounts highlighted in green.

PS/2 3-Button Mouse

- 540dpi resolution
- Programmable third button
- Scroll function
- Opto-mechanical technology
- Compatible with Windows® 95/98/2000/ME/NT/XP
- Size: 4.7"L x 2.4"W x 1.6"H
- Weight: 0.3 lbs.

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------|--------|--------|--------|
| 277245CX | PS/2 mouse | \$7.35 | \$6.65 | \$5.95 |

3-Button Serial Mouse

- Microsoft® mouse compatible
- IBM PC/XT and higher compatibles
- DB-9 female connector
- Size: 4.3"L x 2.6"W x 1.6"H

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------|--------|--------|--------|
| 283223CX | PS/2 mouse | \$6.15 | \$5.55 | \$4.99 |

Single Button Apple Mouse

- 275 CPI resolution
- Soft, quick, responsive mechanical click button
- ADB connector • 29" cord
- Size: 4.8"L x 2.4"W x 1.2"H
- One-year warranty

| Part No. | Description | 1 | 10 | 25 |
|----------|---------------|---------|---------|---------|
| 150480CX | Single button | \$13.65 | \$12.39 | \$11.27 |

Trackball with Menu Software

- Detachable wrist support
- Variable resolution (20-6400dpi)
- One million cycle life tactile switches
- Ergonomic design • Weight: 1.2 lbs.
- Size: 5.5"L x 4.6"W x 2.0"H

System requirements: IBM PC/XT & higher compatible systems; MS DOS 3.3 or later, Windows® 95 & higher

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------|---------|---------|---------|
| 128995CX | LIBRA 90 MP NET | \$29.95 | \$26.95 | \$24.25 |

EyeD USB OptiMouse with Biometric Recognition Software

With security and convenience of its finger print recognition module, this is the world's smartest mouse. No need to memorize passwords—the simple yet unique touch of your finger securely protects your PC, network, and the Internet all at once.

- Surface Enhanced Irregular Reflection optical design
- Fingerprint extraction and verification technology
- Applications: PC and network security, Enterprise IT solution, secure files and folders within your PC, E-commerce

System requirements: Windows® 95/95/NT/2000/ME/XP, available USB port

| Part No. | Description | 1 | 5 |
|----------|--------------------|----------|----------|
| 262625CX | EyeD USB OptiMouse | \$129.95 | \$123.45 |

Mouse Pad/USB Label Printer

Labeling envelopes, binders and files is one-click easy with this combination mouse pad and mini-printer. Just highlight the text in your document, or type labels directly and your 18mm label pops out, ready-to-use.

- Compatible with Windows® 98, 98SE and 2000 Professional PCs.

| Part No. | Description | Price |
|----------|-------------------------|---------|
| 235483CX | Mouse pad label printer | \$11.95 |

Mini Mouse Pad

- Tough non-skid neoprene backing
- Size: 7.0"L x 5.5"W
- Smooth-gliding cloth surface on top

| Part No. | Description | 1 | 10 | 100 |
|----------|----------------|--------|--------|--------|
| 121363CX | Mini mouse pad | \$2.95 | \$2.55 | \$1.89 |

105-Key Multimedia Keyboard with 21 Hot Keys



- PC AT and PS/2 compatible
- Enhanced 95/98/2000 keyboard layout
- 12-function keys with separate cursor and numeric keypad • Soft-touch key
- LED indicator for Num, Caps, and Scroll locks
- Multifunction keys for email, multimedia functions, and sound
- Windows® start menu key
- Size: 17.5"L x 6.3"W x 1.5"H • Weight: 1.8lbs.

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------------|---------|---------|--------|
| 268402CX | 105-key keyboard | \$12.19 | \$10.95 | \$9.89 |

104-Key Keyboard

Quantity
SAVE



- For PS/2 systems • Windows® 95 compatible
- Unmarked window keys • Size: 18.2"L x 7.0"W x 1.5"H
- LED indicators for Num, Caps and Scroll Locks
- 12 Function keys w/ separate arrow & numeric keys
- Tactile feedback • Tilt mechanism • Wt.: 2.7 lbs.

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------------|---------|--------|--------|
| 173649CX | 104-key keyboard | \$12.95 | \$9.75 | \$6.85 |

Space Saver Keyboards

Full featured AT & PS/2 mini keyboards save valuable desktop space.



Standard Keyboard 114868CX

Mini Keyboards
save up to 30%
desk space!

- Adjustable tilt mechanism
- Tactile key stroke
- LED indicators for Num, Caps, and Scroll lock

199718CX: 83-key keyboard

- For PS/2 systems
- Auto repeat
- N-key rollover
- Size: 12.8"L x 6.2"W x 1.0"H
- Weight: 1.9 lbs.

SALE

199718CX

114868CX: 84-key keyboard

- For AT systems, designed for Windows® 95
- Size: 12.8"L x 6.6"W x 1.0"H
- Weight: 2.4 lbs.

211756CX

211756CX: 88/89-key keyboard w/ touch pad

- For AT systems, designed for Windows®
- Built-in touch pad and embedded keyboard
- Soft touch membrane contact
- Size: 11.4"L x 8.5"W x 1.2"H • Weight: 2.3 lbs.

| Part No. | Description | 1 | 10 | 25 |
|----------|--------------------|---------|---------|---------|
| 199718CX | 83-key PS/2 | \$45.95 | \$37.95 | \$36.09 |
| 114868CX | 84-key AT | 49.95 | 44.95 | 38.95 |
| 211756CX | 88/89-key AT | 59.95 | 53.95 | 48.95 |

COMPAQ 101-Key Keyboard



SALE

- For PS/2 systems • Tactile touch
- 12 function keys with separate cursor & numeric keys
- LED indicators for Num, Caps, and Scroll lock
- Recommend using adapter P/N 85500CX, pg 73 or P/N 159089CX, pg 89
- Size: 18.3"L x 6.5"W x 1.3"H • Weight: 3.6 lbs.

| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------|---------|---------|---------|
| 191530CX | 101-key keyboard .. | \$18.95 | \$16.95 | \$14.95 |

Gateway® 104-Key USB Keyboard



- For PC's with USB ports • Soft-touch key
- 12-function keys with separate cursor and numeric keypad • Windows® compatible
- Extra USB ports on side and rear
- LED indicator for Num, Caps, Scroll Locks
- Multifunction keys for email, multimedia functions, sound
- Windows® start menu key
- Size: 18.6"L x 7.8"W x 1.4"H • Weight: 3.8 lbs.

| Part No. | Description | 1 | 10 |
|----------|--------------------|---------|---------|
| 263521CX | USB keyboard | \$16.25 | \$15.45 |

QTRONIX® 104-Key Keyboard with Jumbo Trackball



- PC/AT and PS/2 compatible w/ DOS 3.0 or higher
- "N-Key" roll-over for quick typists
- Tactile click sound and feel
- One-year warranty
- Windows® 95 compatible
- Size: 19.0"L x 6.8"W x 1.4"H
- Weight: 3.7 lbs.

Includes: Software and AT cable adapter

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------|---------|---------|---------|
| 128717CX | Scorpius 35PM/NET | \$99.95 | \$90.95 | \$84.95 |

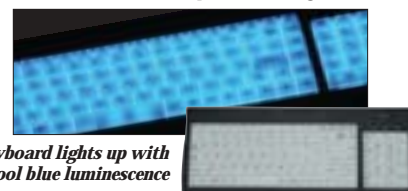
QTRONIX® 108-Key Compact Keyboard



- IBM PC PS/2 or higher compatible
- Use adapter P/N 85500CX, pg 73 for AT systems
- LED indicator for Num, Caps, and Scroll Lock
- 12 function keys
- High quality rubber mechanical key switches
- Size: 15.5"L x 6.5"W x 1.1"H • Weight: 1.9 lbs.

| Part No. | Description | 1 | 10 | 25 |
|----------|--------------------|---------|---------|---------|
| 180347CX | Scorpius 2KP | \$39.95 | \$35.95 | \$32.49 |

Illuminated Computer Keyboard



Keyboard lights up with a cool blue luminescence

Work or play under any lighting conditions with this unique, trendy keyboard. Lit with a cool blue luminescence, all keys on this PS/2 peripheral are instantly identifiable, even in total darkness. Why break the mood of your favorite game with harsh overhead lighting, when you can keystroke with perfect, futuristic, illuminated accuracy?

- Size: 15.3"L x 5.9"W x 1.3"H
- Weight: 1.7 lbs.

| Part No. | Description | Price |
|----------|-------------------------------------|---------|
| 235563CX | Illuminated computer keyboard | \$79.95 |

Wireless RF Keyboard and 3-Button Scroll Mouse

SALE



Stop struggling with cords that catch and tangle. It provides the performance of corded peripherals without needing a clear path or pointing the mouse and keyboard at the computer. This convenient and compatible keyboard provides one-touch Internet access. Simply plug-in the receiver to your PS/2 interfaces.

Keyboard: 104/105 keys enhanced Windows® layout

- 16 internet/media hot key
- 27MHz wireless radio frequency
- 3-Button Scroll Mouse:
- Opto-mechanical technology and 27MHz wireless radio frequency • Resolution: 400 dpi

System Requirements: 2 PS/2 ports, CD-ROM, sound blaster compatible card, Windows® 95/98/2000/ME/NT

Includes: 4-AA for receiver and mouse; user's guide, and CD-ROM software

| Part No. | Description | Price |
|----------|--------------------------------------|---------|
| 233381CX | RF Wireless keyboard and mouse | \$27.95 |

QTRONIX® Keypads

- Tactile click-sound and touch
- 2-key rollover
- Auto repeat function
- One-year warranty

265375CX: 22-key serial

- Serial DB9 connector
- Size: 6.2"L x 4.2"W x 1.3"H
- Weight: 0.8 lbs.

System requirements:

IBM PC/XT or higher compatibles; and MS DOS 3.X

Includes: 3.5" driver diskette and manual

151811CX: 17-key PS/2

- Switch life of 20 million cycles
- Installs into 6-pin mini DIN keyboard connector (no software required) • Size: 5.6"L x 3.4"W x 0.9"D

| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------|---------|---------|---------|
| 265375CX | Scorpius 22RB | \$39.95 | \$35.95 | \$32.49 |
| 151811CX | Scorpius 20PB | 34.95 | 31.49 | 27.95 |



Glare Free Document Light and Holder

This ergonomically-designed document light and holder reduces glare, while creating a well-lit work area. Optometrists recommend the Eclipse Document Light, especially if you work for more than two hours a day. Attaches to either side of your computer monitor. Secure the cord to the back of the computer for clutter-free desk, turn on the energy efficient 10,000-hour bulb, and you will immediately notice the difference. Swings out of the way when not in use; adjustable height. Contemporary design blends in with any office decor.



SALE

| Part No. | Description | Price |
|----------|--------------------------------------|-----------------------------------|
| 224311CX | Glare free document light and holder | \$23.95 \$18.55 |



Glare Free Eclipse Executive Computer Light

Give your eyes a break!

The Eclipse Executive Computer Light helps prevent glare, which is a cause of eyestrain. Ergonomically designed and attaches to the top of your monitor providing glare free indirect lighting. Reduces headaches, eyestrain, and over all fatigue while you work.



SALE

- Mounts easily to monitors
- Low energy usage
- 13-Watt fluorescent bulb (included) last up to 10,000 hours
- Detachable power cord • 110V@60Hz
- Size: 10"L x 4"W x 8"H • Silver graphite color
- Five-year limited manufacturer's warranty

| Part No. | Description | Price |
|----------|-------------------------|-----------------------------------|
| 224303CX | Eclipse executive light | \$24.95 \$24.95 |



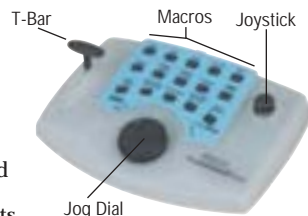
Pro-Video Editing Controller at Breakthrough Price

CommandPost is a pro-quality video-editing controller for your favorite video/multimedia applications at a new breakthrough special purchase price. Working with your favorite video/multimedia applications has never been easier or faster. Now the most popular controls such as jog wheel, fader, etc., from professional non-linear editors, DVEs and DDRs are brought to your desktop. Includes a free copy of VideoWave Version 4.0 video editing software plus templates for most popular video and graphics applications, including Videonics Effetto Pronto, Apple iMovie, Apple Final Cut Pro, Adobe Premiere, Adobe After Effects, and Digital Origin EditDV.

- Concentric jog/shuttle control
- Internally illuminated for readability in darkened edit rooms
- Fader arm, 15 tactile push-button switches
- Supports standard or user-defined keysets
- Easy assignment of control sequences and keyset names

System requirements: USB 1.1 compliant PC: Windows® 98 or 2000, Pentium® 133 or higher, 5MB RAM minimum, 8MB minimum hard disk space. MAC: O.S. 8.6 or higher, Power PC, 10MB of RAM minimum, 5MB minimum hard disk space (MAC software available at www.Jameco.com.)

| Part No. | Description | Size | Weight | Price |
|----------|-------------|------------------------|----------|----------------|
| 220329CX | CommandPost | 1.5"H x 10.0"W x 7.0"D | 2.0 lbs. | \$29.95 |



USB Color Video Camera

- Plug & Play compatible
- Sensor: 1/3" CMOS
- 640 (H) x 480 (V) pixels
- Minimum illumination: less than 15 lux
- Integrated lens: F2.0
- Resolution and output performance: VGA (640 x 480) up to 10 frames per second
- Size: 3.6"L x 2.1"W x 2.0"H • Weight: 0.4 lbs.



System requirements: Pentium® 166MHz, 16MB of RAM, Windows® 98, USB port
Includes: CD-ROM drivers

| Part No. | Description | 1 | 10 |
|----------|------------------------|----------------|----------------|
| 204134CX | USB color video camera | \$14.85 | \$13.50 |

SALE

15" SVGA Color Monitor

- 0.28mm dot pitch
- Resolution: 1280 x 1024 @ 60Hz
- Digital panel control
- Input voltage: 100-240VAC, 50/60Hz (auto switching)
- Power, contrast, brightness, horizontal/vertical size position, recall & trapezoid front control
- HDB15 male connector • UL/CSA/TUV approved
- Size: 14.5"W x 16"D x 14.6"H • Weight: 45 lbs.



† Refurbished

Requirements: IBM PC/XT or higher compatibles
Includes: Power cable, tilt and swivel base

| Part No. | Description | 1 | 10 |
|----------|--------------------------|----------------|----------------|
| 153306CX | 13.5" monitor viewable † | \$99.95 | \$89.95 |

14" SVGA Color Monitor

- 13" diagonal view
- 0.28mm dot pitch
- HDB15 male connector
- Power, contrast, brightness, horizontal/vertical position, recall & trapezoid knobs
- Resolution: 1152 x 864 @ 60Hz
- Input voltage: 100-240VAC @ 50-60Hz
- Size: 14.2"W x 14.6"D x 13.5"H • Weight: 25 lbs.



† Refurbished

Requirements: IBM PC/XT or higher compatible
Includes: Power cable, tilt and swivel base

| Part No. | Description | 1 | 10 |
|----------|------------------------|----------------|----------------|
| 174537CX | 13" monitor viewable † | \$69.99 | \$64.99 |

AverKey Pro PC to TV Converter Box

- Converts VGA video or Macintosh® 640 x 480 to standard NTSC
- Built-in flicker filter
- Resolution: 800 x 600
- TV brightness control
- Compatible w/ Microsoft® Windows® 3.0 and higher
- Size: 6.0"L x 4.0"W x 1.0"H • Weight: 2.2 lbs.
- Two-year warranty



System requirements: VGA-based PC, DOS 3.0 or higher, 640KB RAM or larger

Includes: Compact PC to video converter box, transformer, cables and manual

| Part No. | Description | 1 | 10 |
|----------|------------------|-----------------|----------------|
| 167193CX | Video signal pro | \$109.95 | \$99.95 |

PCI Graphics Accelerator Card

- High performance Savage IX 8MB PCI graphics accelerator
- 800K polygon/sec
- Supports texture, transparency, blending, wrapping and mirror, fogging and blending, point sampled, linear & bi-linear texture filtering
- Built-in direct draw accelerator & NTSC/PAL video encoder
- 14-bits resolution in IDCT transformation
- Supports per pixel texture perspective correction and Z & alpha buffer
- Size: 5.2"L x 2.2"W • Weight: 0.4 lbs.



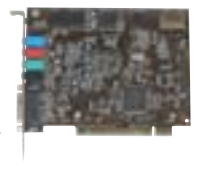
Includes: CD-ROM manual and drivers

| Part No. | Description | 1 | 10 |
|----------|----------------------|----------------|----------------|
| 248840CX | PCI accelerator card | \$39.95 | \$35.95 |



PCI 32-Bit Sound Card

Listen to music come alive using the analog four-speaker output - even if your sound source doesn't support 3D sound! Utilizes the same EMU10K1 audio processor as the Sound Blaster Live, the most powerful audio chip available today. This translates into higher frame rates in your games, more bandwidth for 3D audio and an all-around fantastic sounding audio experience.



- Operating system: Windows® NT 4.0 or 95/98
- Connectors: 2 audio line-out/mini-phone stereo 3.5 mm F, 1 microphone input/mini-phone mono 3.5 mm F, 1 audio line-in/mini-phone stereo 3.5 mm F, 1 game port/MIDI generic DB-15 F
- Max sampling rate: 48 kHz

Includes: CD-ROM drivers

| Part No. | Description | 1 | 5 |
|----------|----------------|----------------|----------------|
| 249404CX | PCI sound card | \$36.95 | \$35.19 |

Troubleshooting & Repairing Consumer Electronics without a Schematic

TAB Publishing Learn how to locate, test, and repair defective components in audio amplifiers, car radios, cassette decks, TV chassis, compact disc players, power supplies, AM/FM receivers and VCRs. (475 pages, 1997)

- Size: 7.4" x 9.3" • Weight: 1.1 lbs.



| Part No. | Description | Price |
|----------|-----------------------------|----------------|
| 136080CX | Troubleshooting & Repairing | \$24.95 |



ISA High-Speed 4-Port Serial I/O **SALE**

Quad 16C650 Serial Ports

- 32-byte FIFO
- 16-bit ISA interface
- MS-DOS, Windows® 3.x, 95 and NT compatible
- Four 16C650 ultra high-speed serial ports
- Supports COM 1-8 & IRQs 3-15 (jumper selectable)
- Size: 6.2"L x 4.3"W • Weight: 1.2 lbs.

System requirements: IBM PC/AT & AT compatibles
Includes: 37-pin male to 4 DB25M cable and manual

| Part No. | Product No. | 1 | 10 |
|----------|-------------|----------------------------|---------|
| 152291CX | 4042A | \$95.28 \$28.75 | \$26.15 |

ISA 2-Port High-Speed Serial I/O

Dual 16C550 UART Ports

- 16-byte FIFO
- Transfer rates up to 921kb/sec.
- Dual high-speed serial ports
- 2 DB9 male connectors
- IRQ (3, 5, 7, 9, 10, 11, 12, 15) and address jumper configurable
- Size: 5.0"L x 2.7"W • Weight: 0.5 lbs.

System requirements: 486/586 and higher compatibles; Windows® 95/98/NT/2000

Includes: Manual and drivers on CD-ROM

| Part No. | Description | 1 | 10 |
|----------|-------------|---------|---------|
| 171555CX | Dual serial | \$24.95 | \$21.85 |

ISA 4-Port Serial I/O

Quad 16C550 Serial Ports

- High-speed 16C550 UARTs with 16 or 32-byte FIFO
- 4 serial ports: 2 each DB9M and DB25M
- IRQs: 3, 4, 5, 9, 10, 11, 12, or 15
- Supports IRQ sharing
- Weight: 0.7 lbs.
- One-year warranty

| COM Address | COM Address |
|-------------|-------------|
| 1 3F8 | 5 3F0 |
| 2 2F8 | 6 3E0 |
| 3 3E8 | 7 2E0 |
| 4 2E8 | 8 260 |

System requirements: IBM AT & higher compatibles
Includes: DB25 male and DB9 male panel bracket assembly and instruction sheet

| Part No. | Description | 1 | 10 |
|----------|------------------------|---------|---------|
| 132572CX | 4-port hi-speed serial | \$59.95 | \$53.95 |

PCI Ultra High-Speed Parallel

Single Ultra High-Speed Port

- Supports ECP and EPP
- 32-byte FIFO
- Transfers data up to 2MB/sec.
- Supports IRQ sharing
- Plug & Play ready
- 1 DB25 female connector
- 32-bit PCI interface
- Size: 4.7"L x 2.2"W
- Weight: 0.5 lbs

System requirements: 486/586 and higher compatibles; Windows® 95/98/NT/2000

Includes: Manual and drivers on CD-ROM

| Part No. | Description | 1 | 10 |
|----------|---------------------|---------|---------|
| 171926CX | PCI single parallel | \$39.95 | \$35.95 |

ISA 2-Port Parallel

21.4MB/Sec. Bidirectional

- Supports EPP/ECP/SPP+BPP/ECP+BPP
- Supports 770kb/sec. transfer rate in EPP/SPP/BPP modes
- IRQ: 3/4/5/7/9/10/11/12/15 and address selectable per port
- Compatible with color printers, scanners, plotters, ZIP drives and MP3 players
- 1 external DB25 female connector and 1 internal 26-pin male header • Weight: 0.6 lbs.

System requirements: 75MHz or higher compatible, 32MB RAM, 16-bit ISA slot, Windows® 95/98/ME/NT/2000

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------|---------|---------|---------|
| 132214CX | 2-port parallel | \$23.85 | \$21.68 | \$19.71 |

ISA Single-Port Parallel

Single Bidirectional Parallel Port

- Single standard and bidirectional port
- Jumper selectable for printer address and port (LPT1 - LPT3)
- Jumper selectable for IRQ addressing (3, 4, 5, 7, 9)
- Size: 4.0"L x 2.0"W • One-year warranty

System requirements: PC/XT/AT and higher

| Part No. | Description | 1 | 10 | 25 |
|----------|--------------|---------|---------|---------|
| 155660CX | Printer card | \$19.95 | \$17.95 | \$14.95 |

PCI Ultra High-Speed I/O

Serial 16C550 and Parallel Port

- 32-bit PCI bus with PCI bus 2.1 specification compliant
- Serial ports are software configurable with throughputs up to 921.6kbps
- BPP/SPP mode compliant
- Windows® 95/98/NT 4.0 drivers supported

169594CX: 2 serial DB9M on card and 1 parallel DB25F panel bracket assembly

| Part No. | Description | 1 | 10 |
|----------|----------------------------------|---------|---------|
| 146691CX | Single parallel | \$23.95 | \$21.95 |
| 163707CX | Dual parallel | 28.95 | 25.95 |
| 146667CX | Dual serial (16C550) | 38.95 | 36.95 |
| 169594CX | 2 serial (16C550) and 1 parallel | 59.95 | 53.95 |

PCI 4-Port I/O

2 Serial 16C650 and 2 Parallel ECP/EPP/SPP/BPP Ports

- Plug & Play compliant
- Serial port: SUN1889 chipset; 32-byte FIFO; compatible with 16C450/550/650 chip; RS-232 IEEE standard interface; 921kb/sec. transfer rate
- Parallel port: SUN1689 chipset; 32-byte FIFO; ACC3203/ST78C36/HT6535 compatible chips; ECP/EPP/SPP IEEE standard interface; 2Mb/sec. transfer rate
- 2 DB9 male connectors and 2 DB25 female connectors
- Size: 4.7"L x 3.6"W • Weight: 0.8 lbs.

System requirements: 486/Pentium® & higher comp. Windows® 95/98/NT/2000; available PCI slot

| Part No. | Description | 1 | 10 |
|----------|-------------|----------------------------|---------|
| 173260CX | PCI 4-port | \$46.17 \$43.75 | \$39.75 |

PCI High-Speed Multi-Port Serial I/O

2, 4 or 8 16C650 Serial Ports

- 32-byte FIFO
- Plug & Play compatible
- Standard RS-232 interface
- Transfer rate: up to 921kb/sec.
- Supports RQ sharing

172005CX: Dual 16C650 Serial Ports

- Two DB9 male connectors
- Size: 4.7"L x 2.8"W
- Weight: 0.5 lbs.

Includes: Manual and drivers on CD-ROM and floppy

171547CX: Quad 16C650 Serial Ports

- Size: 4.7"L x 2.8"W
- Weight: 0.9 lbs.

Includes: Manual, cable (37-pin male to 4 DB25 male) and drivers on CD-ROM

171660CX: Eight 16C650 Serial Ports

- Size: 6.5"L x 3.6"W
- Weight: 1.8 lbs.

Includes: Manual, internal cable with bracket, 2 cables (37-pin male to 4 DB25 male) and drivers on CD-ROM

System requirements: 486 and higher compatibles, Windows® 95/98/NT/2000

| Part No. | Description | 1 | 10 |
|----------|-------------------|---------|---------|
| 172005CX | 2-port PCI serial | \$48.45 | \$43.65 |
| 171547CX | 4-port PCI serial | 129.95 | 116.95 |
| 171660CX | 8-port PCI serial | 179.95 | 161.95 |

PCI Single-Port Serial I/O

Single 16C550 Port

- Plug & Play ready
- Transfer rates up to 921kb/sec.
- 32-bit PCI bus interface
- 32-byte FIFO
- Supports IRQ sharing
- Size: 4.8"L x 1.8"W
- One-year warranty

System requirements: 486/Pentium® and higher compatibles; Windows® 95/98/NT/2000

| Part No. | Description | 1 | 10 |
|----------|--------------------|---------|---------|
| 171361CX | Single-port serial | \$38.95 | \$35.95 |

ISA 2-Port High-Speed Serial I/O

Dual 16C650 Serial Ports

- 32-byte FIFO
- IRQ (3, 5, 7, 9, 10, 11, 12, 15) and address jumper configurable
- DB9 male connector
- Size: 5.0"L x 2.0"W

System requirements: 486/586 or higher compatibles, Windows® 95/98/NT

Includes: Manual and drivers on CD-ROM

| Part No. | Description | 1 | 10 |
|----------|-------------|----------------------------|---------|
| 172380CX | Dual serial | \$40.95 \$16.69 | \$15.59 |

PCMCIA RS-232 Interface

PC card/PCMCIA-based serial port card.

- Low cost single port RS-232 interface
- Uses 16550 UART
- 5, 6, 7 or 8 data bits
- Odd, even or no parity
- 115k baud data rates
- PCMCIA type II compliant
- Configured as COM1, COM2, COM3 or COM4
- Drivers not available for Windows® XP

Includes: 1' cable

| Part No. | Description | 1 | 10 |
|----------|-----------------|---------|---------|
| 164451CX | PCM-COM232 card | \$97.95 | \$92.95 |

ISA IDE Super 16-Bit I/O Plus

Supports 2 IDE and 2 Floppy Drives

- Parallel printer port interface (P/N 131318CX is bidirectional)
- Game port
- Two RS-232 serial ports
- UART emulation:
- 67061CX: 16450; 131318CX: 16550
- Weight: 0.9 lbs. • One-year warranty

Includes: Manual and cables

| Part No. | Description | 1 | 10 |
|----------|----------------|---------|---------|
| 67061CX | 16450 UART I/O | \$14.95 | \$13.49 |
| 131318CX | 16550 UART I/O | 29.95 | 26.95 |

ISA Fast SCSI-II Controller

- Compatible with DOS, Windows®, Windows® NT, Windows® 95, OS2 Netware, and SCO Unix
- Internal and external SCSI-II connectors
- Size: 6.3"L x 2.9"W
- One-year warranty
- Weight: 0.6 lbs.

Includes: Setting sheet, ribbon cable, and 3.5" disk

| Part No. | Description | 1 | 10 |
|----------|------------------------|---------|---------|
| 149294CX | ISA SCSI-II controller | \$44.95 | \$39.95 |

ISA Controller Card

- 16-bit data transfer which is fully compatible with IBM PC/AT interface
- Supports two floppy disk drives (360k, 720k, 1.2Mb, 1.44Mb)
- Controls two "AT BUS" hard disk drives
- High bandwidth host interface works up to 16MHz host I/O clock
- Size: 5.5"L x 2.1"W

| Part No. | Description | 1 | 10 |
|----------|---------------------|---------|--------|
| 206316CX | ISA controller card | \$19.95 | \$9.99 |
| | | \$8.99 | |

PCI Ultra-II SCSI Controller

- AIC-7890AB chipset
- Windows® 95/NT, NetWare, OS/2 compatible
- Plug & Play design
- Internal/external Ultra-II SCSI 68-pin connectors
- Supports Ultra-II SCSI peripherals at speeds up to 80Mbytes/sec. or Ultra/UltraWide peripherals up to 40Mbyte/sec.
- Supports up to 15 SCSI peripherals
- Size: 6.0"L x 3.5"W
- Weight: 0.3 lbs.

| Part No. | Description | 1 | 10 |
|----------|---------------|---------|---------|
| 191513CX | Ultra-II SCSI | \$69.95 | \$63.65 |

Serial Port Complete

Lakeview Research RS-232 & RS-485 are the most versatile, inexpensive interfaces for linking, but the hardware and programming are often misunderstood. This book provides you with everything you need to design, program, install & troubleshoot the links you set up. (306 pages, 1998)

• Size: 7" x 10" • Weight: 1.3 lbs.

Includes: 3.5" diskette

| Part No. | Description | Price |
|----------|----------------------|---------|
| 154771CX | Serial Port Complete | \$39.95 |

PCI GPIB IEEE-488.2 Board

PCI Bus

- 1 MB/s transfer rate
- 1024 word FIFO buffer
- 7 interrupt lines, shared interrupt capability
- IEEE 488.2 standard interface
- Complete talker/listener/controller
- Transparent interrupt enabling/disabling

| Part No. | Mfr. Cross Ref. No. | 1 | 10 |
|----------|------------------------|----------|----------|
| 177121CX | PCI-GPIB-1M | \$398.95 | \$358.95 |
| 73154CX | IEEE-488 1 meter cable | 36.49 | 32.79 |
| 115781CX | IEEE-488 2 meter cable | 37.95 | 34.19 |
| 115801CX | IEEE-488 4 meter cable | 38.95 | 36.19 |

16-Bit Active-Slot PC Extension Interface

Gives you three additional expansion slots.

- Compatible with 8 or 16-bit ISA cards
- Supports: MONO/EGA/VGA/FDC/HDC, game and most I/O
- Control card installs inside your PC with four external slots
- Two mounting brackets to interface the unit via 37 and 62-pin cables
- Isolates system providing short circuit protection
- Can insert and remove cards while power is on
- Can be powered off the PC or externally using 6-pin connection (P/N 78318CX & P/N 78326CX, pg 79)
- Size: 9.5"L x 6.8"W x 1.0"H
- Weight: 5.5 lbs.
- One-year warranty

System requirements: IBM PC/XT and higher comp.

| Part No. | Description | 1 | 10 |
|----------|-----------------------|----------|----------|
| 131238CX | PC slot extender unit | \$205.95 | \$185.95 |

Controlling the World with Your PC

Hightext Publishing Make your PC control stepping motors, monitor fluid levels, or switch appliances on and off! Each of the circuits in this book connects directly to the parallel printer port of your PC and comes complete with a circuit diagram and listings for control software written in Pascal, C and BASIC. (257 pages, 1994)

Includes: 3.5" disk

| Part No. | Description | Price |
|----------|-----------------------|---------|
| 116943CX | Controlling the World | \$34.95 |

More books at www.Jameco.com

Serial Communications Board RS-422/RS-485

- Configured as COM1, COM2, COM3 or COM4
- RS-422/RS-485 cable length: 1.2km maximum
- PCI Bus • 16C550 UART
- 460kbps • 2 ports
- PCI bus 2.1 compliant

| Part No. | Product No. | 1 | 10 |
|----------|----------------|----------|----------|
| 197915CX | PCI-COM422/485 | \$169.95 | \$155.95 |

Digital Input/Output Boards TTL Level

PCI Bus

- Output: 2.5mA @ 0.45V sink, 2.5mA @ 2.4V source
- Software available, see above
- 24-bit digital I/O
- Three 8-bit ports:

Includes: InstaCal: installation & test utilities software

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 197827CX | PCI-DIO24 | \$88.95 | \$85.95 |

PCI Ethernet Card

- 32-bit PCI local bus master architecture
- Complies with IEEE802.3 10Base-T Ethernet / IEEE802.3u 100Base-Tx Fast Ethernet Standard
- Plug and play installation
- Auto detection of 10Mbps or 100Mbps • RJ-45
- Ethernet (10/100Mbps N-Way auto negotiation)
- Supports remote boot function
- Supports half and full duplex operation

Includes: 3.5" diskette drivers and user's guide

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 285501CX | RTL8139D | \$13.49 | \$12.15 |

PCI Ethernet Card

- 32-bit PCI local bus master architecture
- Complies with IEEE802.3 10Base-T Ethernet and IEEE802.3u 100Base-Tx Fast Ethernet
- Plug and play installation
- N-Way 10/100 auto negotiation)
- Pre-OS boot protocol support
- RJ-45 connector
- Full duplex auto negotiation and flow control

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 285510CX | 905B | \$13.99 | \$12.59 |

PCI Ethernet Card

- 32-bit PCI bus master DMA
- Complies with IEEE802.2 and 802.3
- 6kB cache on-board
- RJ-45 connector
- Intel 82559 chipset
- 10/100 auto negotiation
- Plug and play installation
- Supports Windows® 95/98/2000/NT3.51/NT4.0

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 285528CX | GD82559 | \$13.99 | \$12.59 |

USB Products and Accessories

ATEN 5-Port USB 2.0 PCI Card

40 Times Faster Than the Original USB!

USB 2.0 will offer enhanced functionality, allowing more devices to share the increased bandwidth.

- Supports high speed data transfer rate of up to 480 Mbps
- Full backwards compatible with USB 1.1
- Supports Windows® 98SE/2000/ME/XP
- Hot swappable Plug & Play
- 1 internal USB-A port
- 4 external USB-A ports
- PC Power Management v2.2 compliant



SALE

| Part No. | Description | 1 | 10 |
|----------|-------------------------|----------------------------|---------|
| 197940CX | 5-port USB 2.0 PCI card | \$39.95 \$33.89 | \$30.49 |

2-Port USB-A PCI Card

- Plug & Play compatible
- Uses VIA VT83C572 controller chip
- USB specification V.1.1 compatible
- USB legacy BIOS supports
- Operates in USB-aware operating system (Win® 95, 98)
- Size: 4.7"L x 2.0"W
- One-year warranty



SALE

New Lower Prices

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------|----------------------------|---------|---------|
| 155299CX | PCI USB | \$24.99 \$19.55 | \$17.59 | \$15.85 |

USB 2.0 Cables

USB-A Male to USB-A Male

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------|--------------------------|--------|--------|
| 229681CX | 6' cable beige | \$6.49 \$1.65 | \$1.49 | \$1.39 |
| 222033CX | 6' cable black | \$6.49 1.65 | 1.49 | 1.39 |
| 229551CX | 6' cable clear | \$6.49 1.65 | 1.49 | 1.39 |

USB-A Male to USB-B Male

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------|--------------------------|--------|--------|
| 229711CX | 3' cable beige | \$5.99 \$1.55 | \$1.39 | \$1.29 |
| 222607CX | 3' cable black | \$5.99 1.55 | 1.39 | 1.29 |
| 229585CX | 3' cable clear | \$5.99 1.55 | 1.39 | 1.29 |

USB-A Male to USB-A Female

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------|--------------------------|--------|--------|
| 229770CX | 6' cable beige | \$7.99 \$1.65 | \$1.49 | \$1.39 |
| 222068CX | 6' cable black | \$7.99 1.65 | 1.49 | 1.39 |
| 229622CX | 6' cable clear | \$7.99 1.65 | 1.49 | 1.39 |

IEEE 1394 Firewire Cables

4-pin Male to 4-pin Male

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------|--------|--------|--------|
| 175821CX | 6' cable black | \$7.99 | \$6.99 | \$5.99 |
| 222244CX | 10' cable black | 9.99 | 8.99 | 7.99 |

4-pin Male to 6-pin Male Firewire

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------|--------|--------|--------|
| 175839CX | 6' cable black | \$7.99 | \$6.99 | \$5.99 |
| 222228CX | 10' cable black | 9.99 | 8.99 | 7.99 |

6-pin Male to 6-pin Male

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------|--------|--------|--------|
| 175847CX | 6' cable black | \$7.99 | \$6.99 | \$5.99 |
| 222201CX | 10' cable black | 9.99 | 8.99 | 7.99 |

USB Thumb Drives

What better way to keep your data safe than to keep it close to you?

Thumb drives are compact and fit easily in your pocket or hang it around your neck. Portable and lightweight, no external power needed. No drivers necessary for Windows® ME and above.

- 10 year data retention
- Size: 2.9"L x 0.7"W x 0.4"H
- Windows® 98/98SE drivers are available at www.Jameco.com



SALE

| Part No. | Description | 1 | 10 |
|----------|-------------|---------|---------|
| 217761CX | 32MB | \$36.45 | \$29.95 |
| 217779CX | 64MB | 46.75 | 43.95 |
| 217787CX | 128MB | 79.15 | 71.95 |
| 217795CX | 512MB | 189.95 | 185.95 |

2-Port USB-A CardBus PC Card

- New 32-bit CardBus
- PCMCIA type-II card
- Size: 4.6"L x 2.1"W
- USB 2.0 EHCI USB standard; 480Mbps max.

System requirements: Windows® 98, ME, 2000, and Mac OS 8.6 or later



| Part No. | Description | 1 | 10 |
|----------|-----------------|---------|---------|
| 208047CX | USB 2.0 CardBus | \$59.95 | \$49.95 |

Firewire CardBus PC Card

Designed to connect Firewire devices to any notebook computer. With its two external ports, you can have 63 devices on the same ports with a max speed for 400Mbps. A mini DC jack is provided on the card for IEEE 1394 devices that require power through the cable.

- Fully IEEE 1394 OHCI compliance
- 133MB/s CardBus master DMA transfer rate
- Real time transmission data
- Open architecture API
- Peer to peer communication structure
- Backward compatible speeds
- Increases efficiency of data transactions while simplifying software driver designs
- Supports Windows® 98SE/ME/XP/2000 & Apple® MAC OS 8.6 or above
- Size: 4.7"L x 2.1"W
- 32-bit bus

Includes: 6' Firewire cable, manual, and ULEAD VideoStudio software



SALE

| Part No. | Description | 1 | 10 |
|----------|--------------------------|----------------------------|---------|
| 215984CX | Firewire CardBus PC card | \$79.95 \$56.59 | \$50.85 |

New Lower Prices

Everything You Need To Develop Custom USB Peripherals Book

Lakeview (2nd Edition) This USB Complete book provides an easy-to-use interface for computer peripherals. The book covers topics such as what USB can do, transfer types, chip choices, what's inside a USB controller, writing firmware, how the host communicates and more. (523 pages, 1999)

- Size: 7.0" x 9.0"
- Weight: 1.9 lbs.



| Part No. | Description | Price |
|----------|-------------------|---------|
| 171900CX | Complete USB Book | \$49.95 |

External 3-Port USB Thumbhub

Expand your single USB port to a stacked 3-port thumbhub.

- USB Revision 1.1 compliant
- Downstream port with OCD (over current detection) and OCP (overcurrent protection)
- LED indicators uplink/down port communication, and OCP status
- Supports full speed (12Mbps) and low speed (1.5Mbps) transfer rate
- Self-powered mode
- Compatible with Windows® 98/98SE/2000/ME/MAC OS 8.5
- Size: 3.1"L x 0.8"W x 1.2"H



SALE

| Part No. | Description | 1 | 10 |
|----------|-----------------|----------------------------|---------|
| 208451CX | 3-port thumbhub | \$40.95 \$13.99 | \$12.65 |

External 7-Port USB Hub

- 7 USB-A female output ports
- USB-B female root port
- Plug & Play compatible
- Allows you to attach 128 USB devices to your PC
- LED indicators for port, status, and power
- Size: 7.9"L x 2.8"W x 1.1"H
- Weight: 2.6 lbs.

Includes: 6VDC power adapter and USB-A male to USB-B female cable



SALE

| Part No. | Description | 1 | 10 |
|----------|----------------|---------|---------|
| 191450CX | 7-Port USB hub | \$34.19 | \$25.45 |

USB-A to Joystick (DB15) Adapter

- Fully compatible with any 15-pin game port PC game controller
- Mode switch selector for maximum compatibility and flexibility
- Input connector: USB-A male
- USB Plug & Play
- Output connector: DB15-pin female connector
- Size: 3.2"L x 2.3"W x 1.3"H

System requirements: 586 or higher compatible; available USB-A port or Hub; Windows® 98 or higher

Includes: Manual and 3.5" drivers



SALE

| Part No. | Description | 1 | 10 |
|----------|--------------------------|----------------------------|---------|
| 189510CX | USB to game port adapter | \$35.95 \$21.55 | \$19.39 |

External USB-A IrDA Transceiver

Convert your USB port into an infrared communications port to transfer data from you PDA, notebooks, camera, cellular phone, and other mobile devices.

- Adjustable base for height and angle
- Supports standard USB port
- Meets IrDA v1.0 and v1.1
- Plug & Play
- Supports data transfer rate from 115.2k up to 4Mbit per second
- Transmission distance of 3.3' or 39.4'
- Size: (including base) 2.4"L x 1.6"W x 0.9"H

System requirements: Windows® 98/ME/2000/XP
Includes: Manual, extension cable and 3.5" disk software drivers



SALE

| Part No. | Description | 1 | 10 |
|----------|---------------------------|---------|---------|
| 213903CX | USB-A to IrDA transceiver | \$47.95 | \$39.95 |

ATEN SVGA Monitor Splitters

Duplicate a video signal from one source to monitors up to 210 feet away.

- Suitable for SVGA, VGA and multisync monitors

176866CX: 2-channel

- 1 HDDB15 male connector from PC to box; 2 HDDB 15 female connectors from box to monitors
- Weight: 1.4 lbs.
- Size: 6.6"L x 3.3"W x 1.1"H



176866CX

133866CX: 4-channel

- Slide switch for video signal gain control
- Daisy chainable
- Weight: 3.6 lbs.
- Size: 8.8"L x 6.0"W x 1.9"H
- One-year warranty



133866CX

Includes: Power adapter and manual

| Part No. | Description | 1 | 10 |
|----------|----------------------------|---------|---------|
| 176866CX | 2-channel monitor splitter | \$49.95 | \$44.95 |
| 133866CX | 4-channel monitor splitter | \$60.95 | \$58.95 |

4-Port Auto Printer Switch

- Connects up to 4 PCs to 1 printer
- Non-powered
- Compact size
- Auto form-feed selectable
- Transparent to user



177412CX

177412CX: 5 DB25 female connectors

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------|--------|--------|--------|
| 177412CX | 4 to 1 printer | \$6.49 | \$5.55 | \$4.15 |

EyeD Hamster USB Fingerprint Scanner

The EyeD Hamster fingerprint recognition tool for computers focuses on both security and convenience.

This unit, which can be connected to the USB port of a computer and separate from the mouse, provides a simple, convenient and reliable security system instead of using passwords which are hard to remember or can be stolen.

Applications such as computer networks, computer security, business IT solutions, E-commerce, banking and financial security and medical information systems are some of the environments where security plays an essential part.

- Assures computer security through fingerprint recognition
- Provide fast matching
- Compact in size, takes up less than 3" of desk space

Includes: installation manual and CD-ROM drivers

System requirements: Windows® 95/98/NT4.0/2000/ME/XP, available USB port



| Part No. | Description | 1 | 5 |
|----------|--------------|----------|----------|
| 262713CX | EyeD Hamster | \$119.95 | \$109.25 |

HP K80xi All-In-One Color Office Jet

Print / Fax / Copy / Scan

A compact, sturdy all-in-one product that provides presentation quality printing, convenient faxing, and easy to use scanning and copying, and internet ready for your home office. Crisp, clear plain paper color and black and white faxing from the front panel (does not require a PC). Save time by sending unattended faxes with the 20-page automatic document feeder. The PC fax, send, auto redial, and memory send/receive is compatible with answering machines and modems. Extensive memory stores incoming faxes even when the machine is out of paper or ink. Exceptionally high-quality scanning captures subtle contrast and vivid, true-to-life colors for photo-quality reproductions of originals with a 600 x 1200 dpi optical (up to 3600 dpi enhanced). Excellent color and black only copying with professional results, at up to 12 copies per minute black and 8 copies per minute color. 20-page automatic document feeder for unattended copying and reduction and enlargements from 25% to 400%. An Internet ready unit allows you to send and receive email and print web pages directly to the printer without the use of a PC.



- 150 sheet capacity, adjustable tray for letterheads, envelopes, labels, transparencies & custom size print media
- HP color smart technology for print quality, specific paper types or film & special features such as two-sided printing
- Front output bin
- 20-page document feeding for unattended faxing and copying
- Color or black copying with 25% to 400% reduction or enlargement
- 12 pages per minute black and white and 10 pages per minute color printing with maximum resolution of 2400 x 1200 dpi
- Maximum scan size: 8 1/2 x 11
- Maximum paper size: 8 1/2 x 14
- Compatible with Windows® 95/95/2000/ME/NT4.0/XP
- Size: 9.25"H x 14.6"W x 14.6"D
- Weight: 15 lbs.

| Part No. | Product No. | Description | 1 | 5 |
|----------|-------------|-----------------------------|----------|----------|
| 237201CX | K80xi | All-in-one color office jet | \$149.95 | \$134.95 |

HP Laserjet 2200D Printer

Delivers a feature-packed, internet-enabled, easy-to-use printer and maintains HP's high standard for reliability. The 220 series is the solution that puts quality, performance, and value in the same package. Fast print speed with true 1200 dpi printing provides superior print quality, instant on-fuser eliminates warm-up time, large memory, fast processor, and a high monthly duty cycle deliver the best performance for small workgroups. Allows point-and-print wireless printing from portable PCs, PDAs, and cell phones without special drivers.



- 250 sheet tray capacity, adjustable tray for letterhead, envelopes, labels, transparencies and custom sized print media
- True 1200 x 1200 dpi printing
- Built-in duplexer for dual side printing
- 19ppm using standard letter size
- Two output bins: top or rear output selectable for convenience
- Parallel, USB, (FIR) fast infrared port, or network connection
- Size: 13.2"H x 16.0"W x 17.1"D
- 8MB RAM standard expandable to 72MB (2 slots for fonts or memory upgrade);
- 1 (EIO) enhanced input/output port for network connection
- (RET) resolution enhancement technology
- Fast printing performance, built-in intellifont and true type scaling technology
- Weight: 28 lbs.
- Compatible with Windows® 3.1x/95/98/2000/ME/NT4.0/XP or MAC system 7.5.5 or above

Includes: Power cable, CD-ROM drivers and manual

| Part No. | Description | 1 | 5 |
|----------|-----------------------|----------|----------|
| 228718CX | HP Laserjet 2200D | \$429.95 | \$399.95 |
| 236136CX | C4096A ink cartridge | 127.49 | 127.49 |
| 235061CX | Print server I/O port | 335.95 | 335.95 |

Wireless Printer Kit

Print up to 100 feet away, wirelessly!

Convenience and ease-of-use is what the wireless revolution is all about, and this kit will easily make your current printer conveniently cable-free! Now you can place your printer where you want it, not just where the cable will reach. Easy, plug-and-play USB installation means set-up is trouble-free, too. Works with USB connected Canon, Epson, HP and Lexmark printers, and Windows® XP/2000/ME/98 or Mac OS X v10.2.

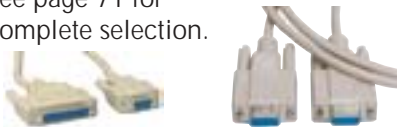
- USB-B type adapter for printer and USB-A type adapter for PC
- Data throughput: 340kbps
- Frequency range: 2.4GHz to 2.4835GHz
- Windows® 98SE/ME/2000/XP compatible
- Receiver sensitivity: -84dBm
- 128-bit encryption



| Part No. | Description | Price |
|----------|----------------------|---------|
| 235133CX | Wireless printer kit | \$89.95 |

Need Printer Cables?

See page 71 for complete selection.



Corporate Customers

Even lower OEM pricing for larger orders! Call 1-800-831-4242 for details today.

226-Piece Network Connector Kit

Every connector needed by a network field technician to repair a network.



• Size: 10.5"L x 7.0"W x 1.5"H • Weight: 2.5 lbs.

This kit includes:

| Quantity | Connector Type |
|------------------|--|
| 50 pieces (each) | RJ11 solid flat cable (6P4C) RJ11 solid flat cable (4P4C) |
| 25 pieces (each) | RJ11 solid round cable (6P4C) RJ45 solid round cable (8P8C) RJ45 solid flat cable (8P8C) |
| 20 pieces | RJ45 protection caps (assorted colors) |
| 5 (each) | BNC for RG58/U cable BNC for RG59/62/U cable BNC for RG174 cable BNC 50Ω terminator BNC Female-to-female adapter BNC T-adapter male-female-female |
| 1 piece | Storage kit |

| Part No. | Description | 1 | 10 |
|----------|-----------------------|---------|---------|
| 207079CX | Network connector kit | \$34.99 | \$31.81 |

AUI/10BaseT Transceiver

Provides connectivity with work stations equipped with AUI ports to 10BaseT ethernet local area network. Switch selectable SQE (signal quality error)/ "Heartbeat Test" to detect collision circuitry in operation.

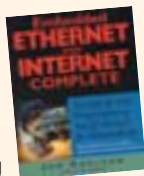


- IEEE 802.3 10BaseT compliancy
- 4 LED indicators for receive, transmission, collision and link
- SQE enable/disable switch
- AUI 15-pin male connector, RJ45 connector
- Size: 2.3"L x 1.7"W x 0.8"H • Weight: 0.2 lbs.

| Part No. | Description | 1 | 10 |
|----------|----------------------|---------|---------|
| 215917CX | Ethernet transceiver | \$29.95 | \$27.95 |

Complete Embedded Ethernet and Internet Book

Lakeview Research A guide to designing and programming embedded systems to communicate in local Ethernet networks and on the Internet. This book is organized for anyone who wants to design, program, or learn about networking with embedded systems. Topics include networking basics, hardware options in building a network, using internet protocol in local and internet communications, serving web pages, etc. (482 pages, 2003) • Size: 7.0" x 9.0" • Weight: 1.7 lbs.



| Part No. | Description | Price |
|----------|-------------------------|---------|
| 236945CX | IC Design Projects Book | \$44.95 |

Cat 6 Cables available on page 67.



NETGEAR 4-Port Firewall Router

11Mbps Cable/DSL

This true firewall is broadband capable, and provides you with the utmost in business class security – Denial of Service (DoS) protection and Intrusion Detection using Stateful Packet Inspection (SPI), URL access and content filtering, logging, reporting, and real-time alerts. With 4 auto-sensing, switched LAN ports and Network Address Translation (NAT) routing, up to 253 users can access your broadband connection at the same time. Smart Wizard and Install Assistant to get your network up and running in minutes.



- 4 (LAN) 10/100 auto-sensing ports
- 1 (WAN) 10/100BaseT Ethernet RJ45 port to connect to any broadband modem such as DSL/Cable
- Wireless slot for NETGEAR MA401 PC card
- Security protection: Firewall – SPI (Stateful Packet Inspection), DoS (Denial of Service), IDS (Intrusion Detection System)
- VPN functionality: NAT traversal, PPTP and L2TP
- Model of operation: NAT (Network Address Translation), static routing, unrestricted users per port
- IP address assignment: static IP address assignment, internal DHCP server on LAN, DHCP client on LAN, PPoE client support
- 40/64 and 128-bit WEP encryption
- Smart wizard to automatically detect ISP address type, port range forwarding, exposed host, enable/disable WAN ping, MAC address cloning, NTP support, URL content filtering
- Size: 1.3"H x 7.4"W x 4.9"D
- Weight: 1.8 lbs.

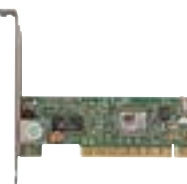
Includes: 10' CAT5 cable, power adapter, user guide & CD-ROM software

| Part No. | Description | Price |
|----------|----------------------------------|-----------------|
| 233331CX | 11Mbps cable/DSL firewall router | \$89.95 \$75.15 |

PCI Ethernet Card

10/100Mbps, Auto Detect

- 32-bit PCI bus mastering for high throughput and low CPU command
- Complies with IEEE 802.3 ethernet standards
- Auto set IRQs & I/O address
- Auto negotiation functions
- Plug & Play installation
- Full duplex and half duplex operation
- RJ45



Includes: 3.5" disk drivers and manual

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------|---------|---------|---------|
| 173606CX | RJ45 (10/100Mbps) | \$14.95 | \$13.49 | \$12.15 |

Jameco Special Values!



Sale items highlighted in yellow.

Great quantity discounts highlighted in green.



8-Port Ethernet Hub

Although designed to the exacting standards of IBM for use in large corporate networks, its price and easy setup make it perfect for small office or home office use. Compatible with all standard STP, UTP, and FTP cables. Can be cascaded to support larger networks via the MDI (uplink) port. Provides port-by-port link/activity and partition LEDs. Partitions ports automatically when excessive collisions or jabbering are detected.



- Conforms to IEEE 802.3 10Base-T standards
- AUI port allows for connection to 10BASE-2, 10BASE-5, and 10BASE-F Ethernets
- MDI port allows cascading of 8242's with straight through cables
- Crossover ports, automatic partitioning
- Size: 8.7"W x 5.3"D x 1.1"H
- Weight: 1.7 lbs.

Special Purchase
Only \$44.95
Was \$133

| Part No. | Description | 1 | 10 |
|----------|-------------|---------|---------|
| 226149CX | 8-port hub | \$44.95 | \$39.95 |

Intel AnyPoint Home Network

Powerful, Simple, Fast Network!

Save money sharing files, printers, modems and DSL connections on a network. In the past, networking has been reserved for companies and businesses since the cost of setting up one for home use was too expensive to be justified. However, the use of computers



is increasing and households having more than one is becoming much more common. Installing networks require Ethernet cards, hubs, cables, reading extensive manuals, opening up your computer to install hardware, and so on. Wouldn't it be nice if setting up your network was as easy as plugging in a keyboard or a mouse? Intel thought so, and introduced the AnyPoint Home Networking System. Install this network in three easy steps: connect the cables to the parallel port of your PC & existing phone lines of your home, install the software with it's tutorial interface, and you have a network up and running.

- Freq. range: 5.5 to 9.5MHz
- Max. distance between nodes: 500'
- Controller: Intel® 21145 phoneline/Ethernet LAN controller
- No wires or cables to run: use existing phone lines
- 3 easy steps to install a complete network
- Save money by sharing a printer and having both computers access the same internet connection
- Size: 8.0"H x 3.8"W x 3.8"D

Includes: 2 phone cables, 2 data cables (parallel cables), 2 power supplies, manual & CDROM drivers
System requirements: 486 or higher processor, Windows® 95/98, 8MB of RAM, 18MB of hard disk space, parallel port for printer use

| Part No. | Description | Price |
|----------|--------------|---------|
| 220417CX | Home network | \$19.95 |

Personal Fast Ethernet Switch Hub

- Eliminate bottlenecks and improve your home or small business network with true 100Mbps connection from JAMECO's choice as the best performance/value combination in networking – PHOEBE.
- IEEE 802.3 (10Base-T)/802.3U (100Base-TX) compliant
- Auto MDI/MDIX, auto negotiation RJ45 ports
- Store and forward method
- Packet forwarding rate: 10Base-T – 14880pps to 10Mbps; 100Base-TX – 14880pps to 100Mbps
- 8k media access control (MAC) addresses
- Buffer memory size: 256k bytes RAM
- LED indicator for power and link activity

Includes: 7.5VDC @ 1A power supply, installation guide and mounting hardware

| Part No. | Description | Size (LxWxH) | 1 | 10 |
|----------|-------------|--------------------|---------|---------|
| 220863CX | 5-port | 4.9" x 2.9" x 1.2" | \$22.75 | \$20.46 |

Single-Line Telephone Filter

In-line Z-BLOCKER® filter blocks interference between DSL/HPN, voice and RF from cordless phones. Plugs directly into any standard phone jack and works with any single line phone, fax or dial-up modem.

| Part No. | Description | 1 | 10 | 25 |
|----------|------------------|--------|--------|--------|
| 196429CX | Telephone filter | \$7.95 | \$6.75 | \$4.99 |

Black Magic Telephone Ringing Generator

Switching inverter that produces low-frequency alternating current to signal telecom ringers or equivalents.

- Frequency: 20Hz
- Series resistor: 300Ω
- Nominal output voltage: 86 Vrms
- No reverse polarity protection

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 145816CX | LBMR12 | \$26.95 | \$24.49 | \$21.95 |

RS-232 to RS-485/422 Bidirectional Converters

- Cable length: 4000' max.
- Data rate: 1MB/second
- 4-wire full duplex or 2-wire half duplex
- Controlled by RTS signal
- DCE and DTE selectable
- Point-to-point and multidrop operations
- RS-485: terminal block and RJ11 connections
- RS-232: DB25 female connector
- Input: 110VAC; except P/N 129218CX 220VAC input
- Weight: 0.9 lbs. • One-year warranty

197931CX: power powered (power adaptor not included)
• Data rate: 100kbps

122956CX: features RS-485SI optical isolation: 2000V
129218CX: features 220VAC input

Includes: 9VDC @ 300mA power adaptor

| Part No. | Description | 1 | 10 |
|----------|--------------------------|---------|---------|
| 117701CX | RS-232-485/422 | \$57.95 | \$51.95 |
| 197931CX | RS-232-485/422 | 69.95 | 62.99 |
| 122956CX | RS-232-485/422 OPT ISO | 119.99 | 107.99 |
| 129218CX | RS-232-485/422 (220 VAC) | 42.95 | 36.95 |

Wall Mount Phone Plate with DSL In-Line Filter

Replace your existing regular wall mount phone plates with this phone plate with built-in DSL in-line filter. Provides a single jack for filtered voice devices; i.e. phone, fax, answering machine, caller ID, analog modem, and DSL modem.

- Stop band isolation is 21dB from 25kHz to 50kHz and 25dB or greater
- Filter topology: 2-pole low pass
- DC resistance through T&R to telephone port is 13Ω maximum
- Size: 4.7"H x 3.2"W x .025"Thick

| Part No. | Description | 1 | 10 |
|----------|----------------------|---------|--------|
| 237041CX | Phone mounting plate | \$10.75 | \$9.75 |

Bidirectional Non-Buffered Serial-to-Parallel Converter

- Bidirectional conversion of parallel and serial signals
- Serial interface: hardware handshake RTS/CTS, software handshake XON/XOFF; DCE/DTE selectable; parity: odd, even, or no parity; data bits: 7, 8
- Connectors: one DB25 female and one Centronics 36-pin male
- Baud rate: 300 to 38,400bps
- Stop bits: 1 or 2 • Size: 4.0"L x 2.5"W x 1.0"H
- Weight: 0.8 lbs. • One-year warranty

Includes: AC adapter (9VAC @ 200mA) and manual

| Part No. | Description | 1 | 10 | 25 |
|----------|--------------|---------|---------|---------|
| 116935CX | Bi-converter | \$49.95 | \$44.95 | \$39.95 |

Bidirectional Serial/Parallel Converter

115.2kbps, 512kb Buffer

- One DB25 female connector, one Centronics 36-pin male connector
- Fully compatible w/ Win® 95
- DCE/DTE selectable
- Baud rate: 300bps – 115,200bps
- FCC class A certified, CE certified
- LED indicator for parallel busy status
- Stop bits: 1 or 2 • Size: 3.8"L x 2.4"W x 1.0"H
- Weight: 0.8 lbs. • One-year warranty

Includes: 9VAC @ 200mA adapter

| Part No. | Description | 1 | 10 |
|----------|-------------|---------|---------|
| 182983CX | Converter | \$48.49 | \$44.95 |

Parallel Port Complete

Lakeview Research Hands-on approach to PCs and their connections to parallel ports. This state-of-the-art book offers many tips on how to get the most out of your parallel port. Enhanced (EPP) and extended capabilities (ECP) types are covered. (343 pages, 1999)

- Windows® 3.1 & Windows® 95
- Selecting cables • PC to PC links
- Size: 7.0" x 10.0" • Wt.: 1.4 lbs.

Includes: 3.5" diskette

| Part No. | Description | Price |
|----------|------------------------|---------|
| 138261CX | Parallel Port Complete | \$39.95 |

External 56kbps Fax/Modem with Digital Answering Machine

- Digital telephone answering machine with voice mail system
- RS-232 (DB9 female) interface
- Modem line speed: 300-56000bps
- Standard compatibility: ITU-T V.92, V.90, V.34, V.32, V.32bis, V.23, V.22bis, V.21 and Bell 103, 212A
- Error correction: ITU-T V.42, MNP2-4
- Data compression: ITU-T 1.42bis, MNP5
- Flow control: RTS/CTS, XON/XOFF
- Comment set: TIA/EIA 602 "AT" command set
- Fax/Modem line speed: 2400-14400bps
- Standard compatibility: ITU-T V.17, V.27 ter, V.29
- Command set: Class 1, 1.0, 2 and associated AT command sets
- Size: 6.3"L x 4.0"W x 1.3"H

System requirements: Pentium® or PC compatible with 16MB of memory, available RS-232 slot; Windows® 9x/ME/NT4.0/2000/XP

Includes: RS-232 cable (DB25/DB9 female to DB9 male); phone cord, 9VAC@1A power supply, CD-ROM drivers and manual

| Part No. | Description | 1 | 10 |
|----------|-------------------------|---------|---------|
| 216493CX | Serial modem (Rockwell) | \$45.95 | \$43.65 |

Short Haul Modem

- Up to 38,400 baud
- Will communicate over 6.3 miles of cable
- No external power required
- DCE/DTE selectable
- Xon-Xoff or hardware handshaking
- RS-232 interface (DB25 female)

| Part No. | Description | 1 | 10 | 25 |
|----------|------------------|---------|---------|---------|
| 116581CX | Short haul modem | \$29.95 | \$26.95 | \$23.95 |

Cellphone Headset

The MAB-18 is the first in-ear system headset for mobile telephones. It offers a flexible microphone arm, cable clip and the possibility of left or right wearing style. It comes with a 2.5mm jack plug that is compatible with most mobile phones.

- 20Hz to 22,000Hz freq. response (headphones); 40-15,000Hz (microphone)
- Omni-directional microphone
- 106dB sound pressure level
- 32Ω impedance (headphone), 1.4kΩ impedance (microphone)

| Part No. | Description | Price |
|----------|-------------------|---------|
| 227096CX | Cellphone headset | \$19.25 |

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!

Details on page 241.

19" Rack Mount Enclosures

Perfect for equipment setup in home, studio or laboratory.

- Ventilation holes on all sides
- Front and back panels are steel w/ aluminum, pre-punched face plates
- Top, bottom, sides durable 0.035" steel
- Front panel: 0.12" Thick • Black front panel
- All enclosures have handles except P/N 132812CX

Includes: Mounting screws



| Part No. | Dimensions (In.) | | | Weight (lbs.) | Pricing | |
|----------|------------------|------|-------|---------------|---------|---------|
| | H1 | H2 | D | | 1 | 10 |
| 132812CX | 1.73 | 1.25 | 9.75 | 6.2 | \$39.95 | \$35.99 |
| 132821CX | 3.46 | 3.0 | 9.75 | 7.9 | 47.95 | 43.49 |
| 132839CX | 3.46 | 2.88 | 11.75 | 9.1 | 53.95 | 48.59 |
| 132847CX | 5.22 | 4.75 | 11.75 | 10.6 | 63.95 | 55.99 |
| 132855CX | 5.22 | 4.75 | 13.50 | 11.8 | 73.95 | 66.95 |
| 132863CX | 8.56 | 8.0 | 13.50 | 15.4 | 94.95 | 84.95 |

19" Equipment Wall Mount Brackets

Save space in your office or computer room by installing your 19" equipment to the walls with this wall mount brackets.

- Black powder coat finish
- Size: P/N 229454CX – 7.0"H x 12.0"D
P/N 229462CX – 12.25"H x 12.0"D



| Part No. | Description | 1 | 10 |
|----------|----------------|---------|---------|
| 229454CX | Bracket for 2U | \$49.95 | \$44.95 |
| 229462CX | Bracket for 3U | 84.95 | 76.45 |

19" Industrial Chassis with PC-AT 300-Watt Power Supply

EIA RS-310C Compliant

- Back panel with 12 open slots
- Supports one 3.5" and two 5.25" external accessible bays and two 3.5" internal bays
- Use with 14-slot PC-BUS compatible backplane P/N 135061CX, above right
- Removable disk drive bay w/ shock resistant design
- Front 12VDC cooling fan with removable air filter screen and mesh
- Waterproof front panel
- Color: gray • Weight: 37 lbs.
- Size: 16.8"L x 16.9"W x 7.0"H



Includes: Mounting hardware

| Part No. | Description | 1 | 10 |
|----------|------------------------|----------|----------|
| 146851CX | 19" chassis w/ 300W PS | \$211.45 | \$190.28 |

19" Rack Mount Enclosure for 14" Monitor

- Clear glass front panel
- Hinged door for accessing monitor controls
- Color: gray
- Size: 19.0"W x 15.1"D x 14.0"H
- Weight: 30 lbs.

SALE



| Part No. | Description | 1 | 10 |
|----------|---------------------------|----------|----------|
| 136021CX | Enclosure for 14" monitor | \$157.55 | \$143.23 |

16-Slot ISA-PCI-PICMG Passive AT Backplane

- Ten 16-bit ISA slots, four 32-bit PCI slots and two 48-bit PICMG slots
- LED indicators for $\pm 5V/\pm 12V$
- Compatible with P/N 146851CX (below left)
- Size: 12.5"L x 10.0"W • Weight: 1.9 lbs.

SALE



| Part No. | Description | 1 | 10 |
|----------|----------------------|---------|---------|
| 135061CX | Passive AT backplane | \$54.95 | \$50.16 |

Cabinet Mounting Plate for 19" Cabinet

- Use as industrial chassis mounting plate for servers, PCs or patch panels
- Made of industrial grade steel and aluminum
- Size: 19.0"W x 15.8"D x 3.5"H • Color: beige



| Part No. | Description | 1 | 10 |
|----------|---------------------|---------|---------|
| 149500CX | Cabinet mount plate | \$39.95 | \$35.95 |

19" Rack Mount Keyboard Tray

This sliding keyboard tray only occupies a 1U or 1.75" space on a rack mount. A hinged articulating arm provides cable management and accommodates most standard size keyboards.

- Black powder coat finish
- Size: 20.0"W x 9.0"D x 3.5"H



| Part No. | Description | 1 | 10 |
|----------|------------------------|---------|---------|
| 229471CX | 19" rack mount KB tray | \$99.95 | \$89.95 |

19" Rack Mount Drawer with Keyboard and Trackball

- Occupies a single unit (1U) rack space
- PS/2 connector for keyboard and trackball
- Color: gray
- Size: 19"W x 13"D x 2.8"H
- Weight: 18 lbs.

Includes: Wrist pads, module, PS/2 to 5-pin DIN and PS/2 to 9-pin adapters, and software



| Part No. | Description | 1 | 10 |
|----------|----------------------|----------|----------|
| 220644CX | Rack mount KB drawer | \$249.99 | \$234.99 |



Phone
1-800-831-8242

Online
www.Jameco.com

Fax
1-800-237-6948

Order Anytime 24x7x365

Relay Rack & Rack Panels

Rack:

- Black powder coat finish
- 10-32 threaded holes
- Used with 19" wide panels
- 16 gauge CRS base
- 1/8" aluminum side rails
- Size: 84"H (133751CX); 47.25 (231079CX)
- Size (at base): 19.8"W x 15.3"D

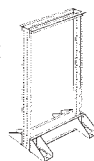
19" Wide Panel:

- 10-gauge black aluminum

Rack screw:

- 10/32 screw; 5/8" phillips head (50 ea.)

133751CX



133276CX



| Part No. | Description | Height | 1 | 10 |
|----------|---------------------|--------|----------|----------|
| 133751CX | Relay rack | 84" | \$159.95 | \$144.95 |
| 231079CX | Relay rack | 47.25" | 119.95 | 105.95 |
| 133276CX | Rack panel (1U) | 1.75" | 9.45 | 8.49 |
| 229489CX | Rack panel (2U) | 3.50" | 10.35 | 9.39 |
| 229497CX | Rack panel (3U) | 5.25" | 12.89 | 11.69 |
| 229500CX | Rack panel (4U) | 7.00" | 14.15 | 12.79 |
| 229446CX | Rack screw (50 ea.) | — | 8.25 | 7.45 |

Rack Mount Card Cage

- For 19" rack mounts
- 24 slots
- Weight: 6.3 lbs.
- Fits card size: 6.5"L x 5.5"W
- Size: 6.5"L x 17.3"W x 6.1"D

Quantity
SAVE



| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------|--------|--------|--------|
| 172099CX | Rackmount card cage | \$6.95 | \$5.91 | \$4.43 |

19" Rack Mount CAT 6 Patch Panels

For the Maximum Network Performance

Our CAT 6 patch panels feature 110D punch blocks

SALE



that are compatible with KRONE or 110-impact tool. The RJ45 jacks are top entry type; PBT UL94 V0 rated. UL/CUL listed and CAT 6 certified. Can be used with T568 A/B installations. Color-coded to T568 specifications.

| Part No. | Description | 1 | 10 |
|----------|---------------------|----------|----------|
| 229518CX | 24-port patch panel | \$129.95 | \$107.69 |
| 229526CX | 48-port patch panel | \$299.95 | 179.39 |

19" Rack Mount CAT 5 Patch Panels

Our CAT 5 patch panels feature 110D punch blocks that

SALE



are compatible with KRONE or 110D tool. UL and CUL listed and certified, CAT 5 certified and can be used with T568 A/B installations. Blocks are color coded for T568 color-coding, and easy wire management.

| Part No. | Description | 1 | 10 |
|----------|---------------------|---------|---------|
| 208768CX | 12-port patch panel | \$28.99 | \$27.55 |
| 208784CX | 24-port patch panel | \$65.95 | 42.75 |

For Cat 5e and Cat 6
Cables see page 67.



2-Way & 4-Way Monitor/Keyboard/Mouse-to-PC Switch Boxes

HDDB15/5-Pin DIN/DB9M

- Allows 2 or 4 users to share one PC system
- Internal diodes maintain keyboard in powered state when switching between systems
- Each user may need 2 or 4 sets of the following cables: P/N 114913CX, 5-pin DIN M-M for keyboard (right); P/N 66173CX, DB15HD M-M for monitor; P/N 132345CX, DB9 F-F for serial mouse (cables, pg 71)
- Size: 7.5"L x 5.3"W x 2.8"H



132249CX



134017CX

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-------------------|------------|---------|---------|
| 132249CX | 2-user switch box | 1.6 | \$17.95 | \$15.95 |
| 134017CX | 4-user switch box | 2.3 | 21.95 | 19.95 |

Keyboard/Monitor-to-PC Switch Box

HDDB15/5-Pin DIN Female

- 2-way switch box
- For 2 PCs connected to 1 keyboard and 1 monitor – diodes maintain keyboard in powered state
- Size: 6.0"L x 4.0"W x 2.3"H • Weight: 1.3 lbs.



| Part No. | Description | 1 | 10 |
|----------|-------------|---------|---------|
| 114155CX | 2 computers | \$14.95 | \$13.49 |

Keyboard/Monitor-to-PC Switch Box

HDDB15/6-Pin Mini DIN Female

- Connects 2 monitors and 2 keyboards to a PC
- Size: 6.0"L x 4.5"W x 2.6"H
- Weight: 1.3 lbs.



| Part No. | Description | 1 | 10 |
|----------|------------------|---------|---------|
| 79177CX | 2-way switch box | \$16.95 | \$15.25 |

Serial Port-to-PC Switch Boxes

DB9 Female

- Connects 2 or 4 serial ports to a PC
- 79126CX: 2-serial port switch box
- Size: 6.0"L x 4.8"W x 2.5"H
- Weight: 1.2 lbs.
- 183417CX: 4-serial port switch box
- Size: 6.1"L x 4.0"W x 2.2"H
- Weight: 1.3 lbs.



79126CX



183417CX

| Part No. | Description | 1 | 10 |
|----------|--------------------------|--------|--------|
| 79126CX | 2-serial port switch box | \$9.95 | \$8.95 |
| 183417CX | 4-serial port switch box | 19.95 | 17.95 |

Network Devices-to-Server Switch Box

RJ45 8P8C Female

- Connects network devices to 4 servers
- 5 RJ45 8P8C females
- Size: 8.0"L x 6.1"W x 2.2"H
- Weight: 2.0 lbs.

SALE



| Part No. | Description | 1 | 10 |
|----------|--------------------------|---------|---------|
| 180099CX | 4-server RJ45 switch box | \$14.95 | \$13.49 |

Fax/Modem/Telephone-to-PC Switch Box

RJ11 6P6C Female

- Connects fax, modem, or telephone to 2 PCs
- Size: 6.0"L x 4.8"W x 2.5"H
- Weight: 1.2 lbs.



| Part No. | Description | 1 | 10 |
|----------|----------------------|--------|--------|
| 79142CX | 2-PC RJ11 switch box | \$9.95 | \$8.95 |

Parallel Printer-to-PC Switch Boxes

DB25 Female

- Connects 2 or 4 PCs to one printer
- 20095CX: 2-PC switch box
- Size: 6.0"L x 5.8"W x 2.3"H
- Weight: 1.3 lbs.
- 155512CX: 2-PC switch box
- Size: 7.2"L x 4.9"W x 2.5"H
- Weight: 2.3 lbs.



20095CX



155512CX



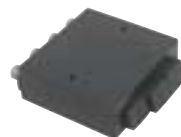
20124CX

- Includes: DB25 M-M cable
- 20124CX: 4-PC switch box
- Size: 6.0"L x 4.0"W x 2.4"H
- Weight: 1.5 lbs.

| Part No. | Description | 1 | 10 |
|----------|-----------------|--------|--------|
| 20095CX | 2 PC switch box | \$8.95 | \$7.95 |
| 155512CX | 2 PC switch box | 6.49 | 5.85 |
| 20124CX | 4 PC switch box | 14.95 | 13.49 |

Coaxial Switch Box

- 3-way switch box, switches from a single input source to 3 outputs
- 60dB isolation – shielded housing
- 75Ω input/output
- 5-900MHz UHF/VHF/FM



| Part No. | Description | 1 | 10 | 25 |
|----------|--------------------|--------|--------|--------|
| 228241CX | Coaxial switch box | \$4.85 | \$4.59 | \$4.35 |

SVGA Monitor Splitters

Duplicate a video signal from one source to monitors up to 210 feet away.

- Suitable for SVGA, VGA and multisync monitors



176866CX

176866CX: 2-channel

- 1 HDDB15 male connector from PC to box; 2 HDDB15 female connectors from box to monitors
- Size: 6.6"L x 3.3"W x 1.1"H
- Weight: 1.4 lbs.



133866CX

133866CX: 4-channel

- Slide switch for video signal gain control
- Daisy chainable
- Size: 8.8"L x 6.0"W x 1.9"H
- Weight: 3.6 lbs.

Includes: Power adapter and manual

| Part No. | Description | 1 | 10 |
|----------|------------------------|---------|---------|
| 176866CX | 2-ch. monitor splitter | \$49.95 | \$44.95 |
| 133866CX | 4-ch. monitor splitter | 65.49 | 58.95 |

Cables...Cables...Cables!

Serial.....Pg 71 & 89 Network.....Pg 67
PrinterPg 71 Extension.....Pg 71
Monitor..Pg 71 CoaxPg 85-86

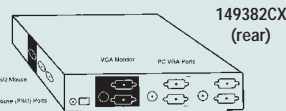
K/V/M Switch Boxes for up to 4 Computers

ATEN

- Selects any computer by hot keys or switch
- Serial and PS/2 mouse and keyboard emulation for automatic PC boot up
- Three stage cascable for accessing more computers
- Supports SVGA, VGA and Multisync monitors
- Keyboard LED status recorded and restored while switching among computers
- Auto scan for monitoring PC periodically
- One-year warranty
- Size (149382CX): 9.0"L x 6.0"W x 2.0"H (149391CX): 10.0"L x 7.0"W x 3.0"H



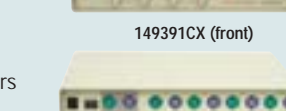
149382CX (front)



149382CX (rear)



149391CX (front)



149391CX (rear)

Includes: Manual & power supply (9VDC @ 600mA)

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|---------------|------------|----------|----------|
| 149382CX | 2 computers | 4.0 | \$113.55 | \$102.19 |
| 149391CX | 4 computers | 7.1 | 229.95 | 209.95 |
| 204062CX | 6' PS/2 cable | | 16.95 | 15.29 |

2-Port K/V/M Switch Box

This two port K/V/M switch box can access two computers from one keyboard, mouse, and monitor. No interface card or software to configure. Operation is as simple as pushing a button on the front panel and entering hot-key commands.



- Supports Microsoft® IntelliMouse, Logitech Net Mouse, etc.
- Supports operating systems DOS, Win 3.x, Win95/98/98SE/2000/ME, WinNT, Netware, Unix, Linux
- Keyboard and mouse pluggable at anytime
- Hot-key function allows easy computer access
- Audible sound for switching port confirmation
- Port and console connectors: female PS/2 keyboard and mouse, female HDDB15 for video
- High VGA resolution
- Size: 4.3"L x 3.0"W x 1.2"H
- Recommend gender changer, P/N 119301CX, pg 89, when ordering 216063CX and 204062CX.

| Part No. | Description | 1 | 10 |
|----------|-------------------|---------|---------|
| 216063CX | 2 port switch box | \$69.95 | \$62.95 |
| 204062CX | 6' PS/2 cable | 16.95 | 15.29 |

4-Port Auto Printer Switch

- Connects up to 4 PCs to 1 printer
- Non-powered
- Compact size
- Auto form-feed selectable
- Transparent to user
- 5 DB25 female connectors

Quantity SAVE



177412CX

ATEN

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------|--------|--------|--------|
| 177412CX | 4 to 1 printer | \$6.49 | \$5.55 | \$4.15 |

TRIPP-LITE isobar®

Surge Protectors



The world's best known, most advanced surge protectors provide total protection against surges, spikes and line noise.

- Up to \$50,000 Ultimate Lifetime Insurance covers Isobar and connected equipment against surge damage for life!
- Diagnostic indicators on Ultra versions alert you to improper outlet wiring, loss of AC power, and damage to protection circuitry
- "Cascade Circuitry" allows you to choose increased noise protection level for your most sensitive equipment
- IsoTel model has dual RJ11 jacks for complete modem/fax surge protection
- 4 & 6-outlet protectors: 6' cord; 8 and 12-outlet protectors: 12' cord
- UL 1449 and 1283 listed • Lifetime warranty

ULTIMATE
LIFETIME
INSURANCE



Isobar Premium 19" Rack Mount Surge Protector

| Part No. | Product No. | Joules | Description | Wt. (lbs.) | 1 | 10 |
|----------|-------------|--------|-------------------------------|------------|----------|----------|
| 139686CX | IBAR12RM | 750 | 12 outlet, 2 isolated filters | 4.7 | \$119.95 | \$107.99 |

Isobar Premium Surge Protectors

| | | | | | | |
|---------|----------|------|------------------------------|-----|---------|---------|
| 18981CX | ISOBAR 4 | 2200 | 4 outlet, 2 isolated filters | 2.4 | \$49.95 | \$44.95 |
| 74544CX | ISOBAR 6 | 2350 | 6 outlet, 3 isolated filters | 2.7 | \$54.95 | \$49.95 |

Isobar Ultra Premium Surge Protector

| | | | | | | |
|---------|-----------|------|------------------------------|-----|---------|---------|
| 19001CX | ISOBAR 8U | 2350 | 8 outlet, 4 isolated filters | 3.5 | \$69.95 | \$62.95 |
|---------|-----------|------|------------------------------|-----|---------|---------|



Standard Surge Protectors



Economical and effective spike and noise suppression with diagnostic LEDs.

168954CX: \$5,000 Ultimate Lifetime Insurance
124337CX: \$35,000 Ultimate Lifetime Insurance

| Part No. | Product No. | Joules | Description | Wt. (lbs.) | 1 | 10 |
|----------|-------------|--------|-------------------------|------------|---------|---------|
| 168954CX | Striker 7 | 480 | Up to 27,000 amp spikes | 1.2 | \$8.95 | \$8.49 |
| 124337CX | Super 7 | 1402 | Up to 42,000 amp spikes | 1.6 | \$17.95 | \$15.95 |



Battery-Backed UPS System

- Protects your PC, fax/modem and all peripherals against all types of power problems
- Automatic system shutdown with free PowerAlert software for 500VA and 700VA
- Up to \$25,000 Ultimate Lifetime Insurance for connected equipment • Up to 45 minutes runtime
- 6-outlets, RJ11 for fax/modem protection



| Part No. | Product No. | Description | Agency | Wt. (lbs.) | Price |
|----------|-------------|------------------|--------|------------|----------|
| 185130CX | IO500 | 500VA, 6 outlets | UL/CSA | 16.0 | \$112.89 |



300-VA UPS System

With Dual Outlet

- Protects against blackouts and brownouts
- Battery charging: less than 6 hours to 90% usable capacity
- Battery backup time: 5-10 mins. @ full load; 10-20 mins. with partial load
- Input voltage: 120VAC @ 60Hz
- Output current: 2.5A (full load) • Output voltage: 120VAC
- Size: 3.4"W x 5.8"D x 13.2"H • Weight: 12.4 lbs.



| Part No. | Product No. | Description | 1 | 10 |
|----------|-------------|-------------------|---------|---------|
| 179961CX | PRB300A | 300-VA UPS system | \$59.95 | \$53.95 |



Integrated Wall Plate Surge Protectors

RCA delivers a revolutionary breakthrough technology in the RCA Smart Plate™ Surge Protector. These surge protectors replace your traditional wall plate in seconds. An RCA Smart Plate™ (235002CX) is ideal for protecting your satellite/cable TV receivers or antennas from coaxial line surges, and a second unit (234991CX) protects modems, phones and faxes from phone line surges.

- \$5,000 surge equipment guarantee
- Safe-operation indicator lights
- Size: 10.8"H x 6.9"W x 1.0"D • Weight: 0.7 lbs.
- 2 outlets • Noise-filter • UL/CUL approved

235002CX: Satellite/Cable TV protection

- Cable ready • 670 joules
- Includes: 6-foot coaxial cable

234991CX: Modem/Phone/Fax protection

- Internet ready • 410 joules
- Includes: 6-foot phone line cord

SALE

Top View



235002CX

234991CX

| Part No. | Product No. | Description | 1 | 6 | 12 |
|----------|-------------|-------------------------------|--------|--------|--------|
| 235002CX | SPC300 | Satellite/cable TV protection | \$9.95 | \$8.95 | \$8.29 |
| 234991CX | SPT300 | Modem/phone/fax protection | 9.95 | 8.95 | 8.29 |



Personal Surge Arrestors

PER Series

- Nominal input voltage: 120VAC@50/60Hz (auto sensing)
- 3 outlet with cable TV protection;
- Receptacle style: NEMA5-15R
- Surge energy rating: 240 Joules
- Peak current—normal mode: 6.5KAmps; common mode: 13.0KAmps
- EMI/RFI noise rejection: 60dB • UL 1449 TVSS rating: 330V • UL/CSA approved
- Lifetime warranty with \$2,500 lifetime equipment protection policy

SALE

191273CX



| Part No. | Description | 1 | 10 |
|----------|-----------------------|---------|---------|
| 191273CX | 3-outlet w/ cable TV | \$13.55 | \$12.95 |
| 191855CX | 7-outlet w/ fax/modem | 15.99 | 14.50 |

6-Outlet Surge Protector

- Metal
- Max. spike current: 4500 amps, 50 joules
- 3-prong, 4' power cord
- Size: 12.3"L x 2.4"W x 1.3"H



| Part No. | Description | Weight (lbs.) | 1 | 10 | 100 |
|----------|-----------------|---------------|--------|--------|--------|
| 20175CX | Metal pwr strip | 1.5 | \$9.85 | \$8.85 | \$7.85 |

6-Outlet Surge Protector

- Standard 6-outlet surge suppressor
- Heavy-duty power cord (14AWG x 3)
- RESET/OFF switch with built-in 15A circuit breaker
- Clamping voltage: 400V • Max. surge dissipation: 900 joules
- Max. surge voltage: 6500V • Max. spike current: 4500A



| Part No. | Description | Weight (lbs.) | 1 | 10 | 100 |
|----------|------------------|---------------|--------|--------|--------|
| 216485CX | Surge suppressor | 0.9 | \$6.95 | \$6.25 | \$5.59 |

SL WABER® Compact Surge Protector for Notebook Computers

- Single 3-prong receptacle outlet with telephone modem protection
- 3-prong wall mount type • 210 joule rating
- Surge LED indicator • RFI noise blocker

Includes: 4' RJ11 cord



| Part No. | Description | Size | 1 | 10 | 25 |
|----------|------------------|----------------------|--------|--------|--------|
| 206279CX | Outlet protector | 2.3"W x 1.3" x 3.3"H | \$6.95 | \$6.25 | \$5.59 |

We'll Send It Today!

Don't worry about backorders. Over 99% of our products are in stock!
Just place your order by 6PM EST for same business day shipment

Power Strip Saver Single Outlet

Get full use of your power strips and UPS outlets with our high quality power strip outlet saver, you can use all the outlets on your surge suppressors, UPS, and outlet strips. Just plug a bulky power adapter into this cable and free up your other outlets.



Add more wall adapters to your power strip!

Before
Four Outlets Blocked



After
Every Outlet is Usable



| Part No. | Description | Length | Cord Type | 1 | 10 | 100 |
|----------|-----------------------|--------|-----------|--------|--------|--------|
| 199777CX | AC Power cord (black) | 1 ft. | SVT | \$1.69 | \$1.55 | \$1.39 |
| 208338CX | AC Power cord (beige) | 1 ft. | SVT | 1.69 | 1.45 | 1.09 |

"Y" Power Strip Saver Double Outlet

Get full use of your power strips and UPS outlets with the "Y" power strip saver. Plug those bulky adapters into these cables and plug the cables into the power strip. Need the extra adapter to be plugged into the power strip? Use the "Y" power strip saver to add an extra adapter.



| Part No. | Description | 1 | 10 | 100 |
|----------|-------------------|--------|--------|--------|
| 208346CX | Power strip saver | \$2.89 | \$2.75 | \$2.59 |

PC Monitor Power Cable

- Allows connection of monitors directly to standard IBM type power supplies
- Monitor turns on/off automatically via system power switch
- IBM PC/XT and higher compatibles
- See page 156 for more power adapter cables



| Part No. | Description | 1 | 10 | 100 |
|----------|------------------|--------|--------|--------|
| 177447CX | 1' monitor cable | \$2.95 | \$2.49 | \$2.15 |

Computer Power Cord

- 3-conductor piggy-backed power cord for computers
- 18/3 AWG
- SJT round junior service type cord
- UL/CSA approved • Weight: 0.5 lbs.



| Part No. | Description | 1 | 10 |
|----------|------------------------|--------|--------|
| 84937CX | 6' computer power cord | \$6.95 | \$6.29 |

Computer Power Cord

- 3-conductor power cord extension for computer power supplies
- 18/3 AWG
- SVT round light service type cord
- UL/CSA approved • Weight: 0.4 lbs.



| Part No. | Description | 1 | 10 |
|----------|------------------------|--------|--------|
| 28468CX | 6' computer power cord | \$3.90 | \$2.95 |

Laptop Computer Power Cords

- 2-conductor power cord for laptop computers and power supplies
- 18/2 AWG
- SPT-2 flat junior duty type cord
- UL/CSA approved
- Weight: 0.3 lbs.

Quantity
SAVE



| Part No. | Description | 1 | 10 |
|----------|--------------------------------|--------|--------|
| 189587CX | 6' "8" style laptop power cord | \$2.95 | \$2.21 |
| 200791CX | 6' "D" style laptop power cord | 2.95 | 2.69 |

See page 161 for our full selection of
PC Power Supplies



For our complete line of Power Cords, see page 156.



Cobra

80-Watt DC-AC Inverter

- Input voltage: 12VDC
- Output voltage: 115VAC $\pm 5\%$
- Overload and thermal protection
- Output connector: 2-prong receptacle
- Input connector: automobile power plug
- Size: 4.1"L x 1.5"W x 1.5"H • Weight: 2.0 lbs.

SALE



| Part No. | Description | 1 | 10 | 25 |
|----------|---------------|---------|---------|---------|
| 202809CX | 80-W inverter | \$20.40 | \$18.55 | \$16.86 |

150 & 270-Watt DC-AC Inverters

New



- Input voltage: 10-15VDC
- Output voltage: 110VAC @ 60Hz
- Peak power surge capable • Battery low shutdown
- Overload & thermal protection • Weight: 1.3 lbs.
- 277181CX: size: 4.8"L x 2.9"W x 1.8"H
- 202016CX: size: 9.3"L x 4.1"W x 2.2"H
- Auto adapter and battery clips

SALE

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------------|---------|---------|---------|
| 277181CX | 150-W auto plug | \$28.95 | \$27.49 | \$26.15 |
| 202016CX | 270-W auto/battery clip | \$3.95 | \$1.25 | \$0.69 |

400-Watt DC-AC Inverter

Exclusive twin circuit design of dual high-output transformers provides 30% more power. MOSFET technology transistors with split design for cooler internal operating temperature. Outboard mounted replaceable with dual 25AMP spade-type fuses. Dual grounded standard 110VAC receptacles. Includes: 12VDC cigarette light accessory plug, heavy-duty cable clamps, and spare 25A spade fuse.



- Input: 10-15VDC • Max. continuous power: 400W
- Surge capacity (peak power): 800W
- 90% max. efficiency • No load draw: 0.3A
- Size: 6.4"L x 6.1"W x 2.1"H • Weight: 2.4 lbs.

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 249164CX | VEC031POB | \$57.49 | \$54.65 | \$51.89 |

DC-to-DC Power Converter

A high quality 1000mA regulated DC adapter with the ability to convert power from your cigarette lighter plug in 1.5V increments from 1.5V to 9.0V. You may choose from a full range of universal plugs (2.1mm/2.5mm jack/1/8" jack/ 9V battery snaps) and output polarity (center + or -). Perfect for cassette players, CD players, radios, mini TV's and many other battery run appliances.

SALE



- Two DC output cigarette lighter outlets
- Built-in 10A mini blade fuse on plug

New Lower Prices

| Part No. | Description | 1 | 10 |
|----------|--------------------|---------|---------|
| 218819CX | DC-to-DC Converter | \$44.49 | \$11.15 |
| 218801CX | 10' Extension cord | \$6.49 | 5.15 |

We'll match the print advertised price of any like product.
It's that simple!

Jameco's Low-Price Guarantee

UTP Ethernet Cable Tester

- Connector type: RJ45 8P8C
- System used: 258A, 356A, AT&T/Ethernet 10BaseT
- Miswire, open, short tests
- Size 4.5"L x 2.5"W x 1.3"H

Requires: 9V battery (recommend P/N 151095CX, pg 157)

Includes: Zipper case



| Part No. | Description | 1 | 10 |
|----------|-----------------------------|---------|---------|
| 115895CX | Network Cat. 5 tester | \$29.95 | \$26.95 |

Modular Cable Tester with Remote Terminator

Easily read correct pin configuration of 10baseT, 10base2, RJ45/RJ11 modular cables, 258A, TIA568A/568B, token ring, etc. Test installed cables either on wall plate or patch panel from a distance.



- Check for cable continuity, miswiring, open, short, grounding, and pin configurations
- Cable adapters: RJ45 M-M, 2 RJ45M-BNCM and BNC F-F • Weight: 0.7 lbs.
- On-board conn.: 2 RJ45F (tester) and 1 RJ45F (remote) • One-year warranty
- Size: 4.0"L x 2.5"W x 1.0"H (Main console)
- Size: 4.0"L x 1.3"W x 1.0"H (Remote)

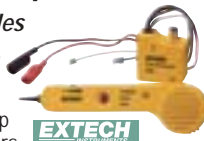
Includes: Manual and test cables

| Part No. | Description | 1 | 10 |
|----------|----------------------------|---------|---------|
| 145710CX | Modular cable tester | \$84.95 | \$76.49 |

Tone Generator & Amplifier Probe

For Tracing Wires & Cables

- Tests wire trace, continuity, clear/busy/ringing line, tip/ring identification
- Insulated inductive probe tip prevents shorting conductors
- Selectable continuous or variable tone generation
- Built-in speaker on probe with sensitivity control
- Output jacks for both headphones and handsets



Includes: Alligator test leads, modular phone connector cables, 9V battery, and carrying pouch

| Part No. | Description | 1 | 10 |
|----------|------------------------------|---------|---------|
| 198002CX | Tone gen. & amp. probe | \$79.95 | \$71.95 |

19" Rack Mount CAT 6 Patch Panels **SALE**

For the Maximum Network Performance

Our CAT 6 patch panels feature 110D punch blocks that are compatible with KRONE or 110-impact tool. The RJ45 jacks are top entry type; PBT UL94 V0 rated. UL/CUL listed and CAT 6 certified. Can be used with T568 A/B installations. Color-coded to T568 specifications.



| Part No. | Description | 1 | 10 |
|----------|---------------------------|------------------------------|----------|
| 229518CX | 24-port patch panel | \$129.95 \$107.69 | \$107.69 |
| 229526CX | 48-port patch panel | \$299.95 179.39 | 169.99 |

19" Rack Mount Patch Panels

Our CAT 5 patch panels feature 110D punch blocks that are compatible with KRONE or 110D tool. UL and CUL listed and certified, CAT 5 certified and can be used with T568 A/B installations. Blocks are color coded for T568 color-coding, and easy wire management.



| Part No. | Description | 1 | 10 |
|----------|---------------------------|--------------------------|---------|
| 208768CX | 12-port patch panel | \$28.99 | \$27.55 |
| 208784CX | 24-port patch panel | \$65.95 42.75 | 39.95 |

Category 6 Network Cables **New Lower Prices**



| Part No. | Description | 1 | 10 | 50 |
|----------|------------------------|--------------------------|--------|--------|
| 219707CX | 3' gray cable | \$6.29 \$2.79 | \$2.69 | \$2.56 |
| 219862CX | 7' blue cable | \$7.99 3.99 | 3.87 | 3.68 |
| 219766CX | 7' black cable | \$7.99 3.99 | 3.87 | 3.68 |
| 220020CX | 14' white cable | \$9.99 6.59 | 6.37 | 6.05 |
| 219977CX | 14' yellow cable | \$9.99 6.59 | 6.37 | 6.05 |
| 219934CX | 25' red cable | \$15.49 9.39 | 8.92 | 8.47 |
| 219846CX | 50' green cable | \$22.49 14.29 | 13.58 | 12.90 |

For more Cat 6 Network Cables see page 67.

LAN Tester Tool Kit For RJ11, RJ45, USB, and BNC

A great tool kit for network cable and telephone-cabling system installers, network debugging engineers and technicians, datacom consultants. This tester offers simple and easy operation, compatible with RJ11, RJ45, USB, and BNC wiring system; you can verify the condition and status before or after installation within two seconds. The kit includes punchdown tools, crimping tool, and cable tester.

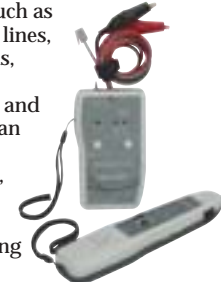


- Shield/ground test
- Connected wire display
- Crossover/wrong connection display
- Ethernet 10Base2/5, cable modem, CATV termination value detection
- Open/short wire test

| Part No. | Description | 1 | 10 |
|----------|----------------------|---------|---------|
| 249252CX | LAN tester kit | \$99.95 | \$89.95 |
| 198791CX | 9V battery | 2.85 | 2.55 |

Net Toner and Probe Kit

With testing functions such as sending tones, verifying lines, indicating line conditions, identifying tip and ring, providing "talk" battery and testing continuity, you can use this kit on single conductor, twisted pairs, coaxial cables, and non-energized electrical wiring. Great for installing or troubleshooting telephone, data, security/alarm, heating and air, audio/visual, and electrical systems. Connections include alligator clips, RJ45 jacks and RJ12 plugs.



Includes: Padded zipper case w/ belt loop & spare tips

| Part No. | Description | 1 | 5 |
|----------|-----------------------------|---------|---------|
| 227897CX | Net toner & probe kit | \$79.95 | \$76.95 |

Corporate Customers

Even lower OEM pricing for larger orders! Call 1-800-831-4242 for details.

PC Testing & Diagnostics

Computer Monitor & NTSC Tester Mac, PC and TV

- Tests VGA, Super VGA, Mac monitors and TVs
- Checks full-field color bars, color raster, dots (static and dynamic convergence), cross-hatch and windows (power supply regulation, checks for a clear distinction between white and black portions)
- Connectors: HDDB15F, DA15F
- Two video conn. for TV, composite and S-video
- Power with either a 9V battery or an external DC adapter (recommend P/N 151095CX, pg 157 or P/N 100845CX, pg 150)
- Size: 5.5"L x 3.0"W x 1.4"H
- Weight: 0.7 lbs. • One-year warranty



| Part No. | Description | 1 | 10 |
|----------|------------------------------|----------|----------|
| 149729CX | Computer monitor tester | \$189.95 | \$179.95 |



Diagnostic Card for PCI-Bus Systems

This is the first diagnostic card for monitoring Power-On-Self-Test results in systems using PCI-Bus architecture.

- Plugs into any PCI I/O slot
- Digital indicators for every POST code error
- LEDs for monitoring power (DC): +12, -12, +5, +3
- LEDs for clock and reset failure
- Comprehensive manual w/ error codes from all major BIOS manufacturers including AMI, AWARD, PHOENIX and more • One-year warranty



| Part No. | Description | 1 | 10 |
|----------|--------------------------------|----------|----------|
| 135108CX | PCI-POST diagnostic card | \$265.95 | \$239.95 |



PC Diagnostic Software "Quicktech '98"

Self-booting software for 386, 486 and Pentium® II/MMX/III/AMD Athlon

- Verify proper operation and troubleshoot failures of all major PC components: hard drives (MFM, RLL, IDE, SCSI); floppy drives; base, extended and external cache RAM; VGA/EGA/VESA compliant video cards; keyboard; monitor; printer; and I/O ports
- 48 hour burn-in mode for lengthy testing
- Floppy drive head cleaning function

Includes: Loopback testers for DB9 and DB25 serial and DB25 parallel ports, manual and 3.5" disk



| Part No. | Description | 1 | 10 |
|----------|------------------------------|----------------------------|---------|
| 134826CX | QuickTech '98 software | \$98.95 \$86.55 | \$78.69 |

5.6" Color TFT Monitor

NTSC Format

- TFT color LCD display
- 224 x 640 pixel display resolution
- Built-in 1 watt speaker
- Brightness, color and volume adjustments
- Video input: 1.0Vp-p; 75Ω
- Audio input: 2Vp-p; 2kΩ
- Size: 6.1"W x 4.8"H x 1.2"D
- Weight: 2.6 lbs.



Includes: RCA cable, mounting stand with hardware and 12VDC @ 500mA power supply

| Part No. | Description | 1 | 10 |
|----------|------------------------------|----------|----------|
| 201702CX | 5.6" TFT color monitor | \$279.95 | \$259.95 |

4" TFT LCD Monitor

NTSC Format

- TFT color LCD
- Resolution 234 x 383dpi
- Backlight: cold cathode fluorescent lamp
- Power source: 12VDC @ 400mA
- 5" long lead wire with 4 position molex type power connector
- Tint color and brightness adjustable
- Size: 4.1"L x 3.3"W x 0.7"H (display)
- Size: 4.7"L x 3.3"W x 1.3"H (unit) • Weight: 0.7 lbs.



| Part No. | Description | 1 | 10 |
|----------|----------------------------|----------|----------|
| 172742CX | 4" color LCD monitor | \$159.95 | \$149.95 |

XBOB-NC Video Text Module

XBOB integrates Decade's third-generation OSD technology into a convenient plug & play format. The command set is nearly identical to that of our popular BOB-3 modules (pg 232), and XBOB includes all of the optional circuitry described in the BOB-3 Application Guide. XBOB lets your PC display up to 680 characters on standard video monitors and TV sets. With 63 user-definable character patterns, XBOB supports pseudo-graphics and multiple languages. XBOB generates video on-board, or automatically genlocks to your video source and superimposes characters over the image. Printable characters and commands control XBOB through a fast RS-232 data link, much like a simple serial printer.



- Higher display density; 40x17 characters (680 max.)
- 254 ROM character patterns plus 63 user-definable RAM characters • Character size control
- Horizontal (1 line) and vertical smooth scrolling (up to 16 lines)
- Faster & more reliable host communication
- Stand-alone operation, for simple source ID or fixed reticle applications
- Improved automatic video mode control

| Part No. | Description | 1 | 10 |
|----------|------------------------------|----------|----------|
| 283768CX | XBOB video text module | \$199.95 | \$189.95 |
| 237243CX | 9VDC power supply | 3.79 | 3.45 |
| 283776CX | Serial cable | 9.95 | 8.95 |

For BOB-3 see page 232

SONY® Color CCD Camera

Sony Chipset

- 1/4" Sony super HAD CCD sensor
- NTSC system with 510(H) x 492(V)
- Furnished mini lens: 3.6mm
- Minimum illumination: 0.5 lux @ F2.0
- Signal to noise ratio: >48dB • 330 TV lines
- Supports these functions: auto electronic shutter (AES), auto iris control (AIC), auto gain control (AGC), auto white balance (AWB), back light compensation (BLC) and flicker less (FL)
- Video drive iris control; high/low switchable auto gain control; on/off backlight compensation
- Internal, negative synchronous system
- Video output: 1Vp-p; 75Ω



Requires: 12VDC @ 120mA power supply (recommend P/N 100095CX, pg 150)

Includes: Power/signal cable & mounting hardware

| Part No. | Description | 1 | 10 |
|----------|-----------------------------|----------|----------|
| 213436CX | Enclosed color camera | \$179.95 | \$161.95 |

Mini Enclosed Color NTSC Camera

- 1/4" CCD Sensor
- 350 horizontal TV lines
- 1 lux/F2.0
- Electronic shutter: up to 1/120,000 sec.
- NTSC system with 512(H) x 492(V)
- Scanning system: 2:1 interlace
- Signal to noise ratio: 48dB • Lens: 3.7mm/F2.0
- Video output: 1Vp-p, 75Ω • FOV: 92°
- Size: (enclosure) 1.3"L x 1.1"W x 0.9"D
- Weight: 0.3 lbs. • Two-year warranty



Requires: 9VDC – 12VDC @ 500mA power supply (recommend P/N 100853CX, pg 150)

Includes: BNC/Power cable and mounting hardware

| Part No. | Description | 1 | 10 |
|----------|----------------------------|----------|----------|
| 215423CX | Mini enclosed camera | \$129.95 | \$119.95 |

Color Interline Camera

Water Resistant with Adjustable Mounting Bracket

- EIA format
- 1/3" CMOS image sensor
- EIA format: 512(H) x 492(V)
- 330 horizontal line resolution
- 2:1 scanning interlace system
- 5 lux sensitivity
- Video output: 1V p-p; 75Ω • 6mm lens/F2.0
- S/N ratio: 40dB • FOV: 530
- Electronic shutter: 1/60 – 1/1,200 sec.
- Connectors: 1 standard RCA female jack for video, and in-line 2.1mm power-plug connector for power supply • Size: 2.6"L x 0.9"Dia.



Includes: Adjustable mounting bracket, instruction sheet and 9V @ 100mA power supply

| Part No. | Description | 1 | 10 |
|----------|--------------------|---------|---------|
| 185017CX | Color camera | \$99.95 | \$89.95 |

Color Camera Board

NTSC Format

- 1/3" image sensor
- 5.0 lux • FOV: 92°
- 3.6mm lens/F2.0 • 330 TV lines
- Low power consumption
- Automatic exposure, gain and white balance
- Size: 1.0"L x 0.9"W x 1.1"H



| Part No. | Description | 1 | 10 |
|----------|--------------------|---------|---------|
| 171011CX | Camera board | \$73.95 | \$66.59 |

SONY® Black & White Low-Light Camera

Sony Chipset

- Signal to noise ratio: >48dB
- Requires 12V power source (not included)
- 6" wires with 4-pin Molex-type keyed connector
- EIA system 537(H) x 505(V)
- Temp. tolerance: -5°C to 40°C
- Composite output with 420 line resolution
- Lens: 3.6mm
- Shutter speed: 1/60 - 1/1000 • FOV: 92.6°
- Video output: 1.0Vpp composite video/75Ω
- Size: 1.3"L x 1.3"W x 1.0"H • One-year warranty



| Part No. | Description | 1 | 10 | 25 |
|----------|----------------------|----------------------------|---------|---------|
| 150931CX | Camera board | \$89.95 \$85.45 | \$79.95 | \$69.95 |
| 159071CX | 8mm lens 38.6" | 17.95 | 17.10 | 16.25 |

Black & White Camera

EIA Format

- 1/3" CCD image sensor
- 510(H) x 492(V)
- Horizontal resolution: >350 lines
- Scanning system: 2:1 interlace
- Sensitivity: 0.7 lux/F2.0
- Video output: 1Vp-p, composite video 75Ω
- Power supply: 12VDC (recommend P/N 162996CX, pg 149)
- Size: 1.3"L x 1.3"W x 1.2"H • S/N ratio: 46dB
- Power consumption: 110mA • FOV: 92°
- Electronic shutter: 1/125,000 sec. (linear)



| Part No. | Description | 1 | 10 |
|----------|--------------------|---------|---------|
| 171029CX | Camera board | \$44.95 | \$40.45 |

10" Black & White Security Monitor with Audio

- EIA format
- 9" viewable screen
- Resolution: 700 line
- Push down front panel for volume and power switch
- BNC jacks for audio/video input
- Input voltage: 120VAC @ 60Hz (2-prong 5" cable)
- Size: 9.3"W x 12"D x 9.1"H • Weight: 15 lbs.



Includes: Manual

| Part No. | Description | 1 | 10 |
|----------|------------------------------|----------|---------|
| 253067CX | 10" black & white monitor .. | \$109.00 | \$89.95 |

SMK RF Modulator

- Output frequency: NTSC Ch. 3/4, switch selectable
- Operating voltage: 12V@ 50mA max.
- RF output impedance: 75Ω (F-type connector)
- PC connections: solder tab connectors
- Manufacturer No.: WMN2144-01

Quantity
SAVE

| Part No. | Description | 1 | 10 | 50 | 100 |
|----------|--------------------|--------------------------|--------|--------|-------------------|
| 141639CX | RF modulator | \$4.95 \$4.45 | \$3.99 | \$3.25 | \$2.39 |



4-Channel 2.4GHz Wireless Audio/Video Transmitter System

CCIR, NTSC, PAL, EIA Format

- ISM Band: 2.413 – 2.470GHz
- Four selectable transmitter and receiver channels
- Antenna mode: dipole (omnidirectional)
- Impedance: 50Ω typical
- Video input: 1 Vp-p composite
- Audio input: 2Vp-p max.
- Weight: 3.2 lbs.



Includes: Two 9VDC @ 300mA with 1.3mm x 3.5mm center positive plug, and two 2.5mm male to RCA patch cables

| Part No. | Description | 1 | 10 |
|----------|-----------------------------|----------|----------|
| 265308CX | 4-ch. wireless system | \$149.95 | \$134.95 |

4-Channel 2.4GHz Wireless Audio/Video Receiver and 10mW Transmitter

Make your camera wireless up to 492 feet!

- Transmission range: 492' (150M outdoors); 164' (50M indoors)
- 4-channel switch selectable on transmitter
- Output power (transmitter): 10mW
- Output impedance: 50Ω typical
- Video input: 1Vp-p composite
- Audio input: 2Vp-p max.
- RCA jacks for audio and video connectors

192858CX



192866CX



Receiver:

- Non-volatile memory protects system set-up from power loss
- Video loss detection and freeze channel
- Mute and alarm trigger port
- Size: (transmitter) 4.5"L x 3.2"W x 1.0"H
- Size: (receiver) 6.5"L x 5.5"W x 1.4"H
- Wt.: 1.8 lbs.

Includes: RCA cable, 12VDC@500mA adapter, RCA to F connector adapter (receiver unit only)

| Part No. | Description | 1 | 10 |
|----------|-----------------------------|---------|---------|
| 192858CX | 4-channel transmitter | \$89.95 | \$79.95 |
| 192866CX | 4-channel receiver | 124.95 | 112.95 |

Affordable Wireless Security

2.4GHz Wireless Security Camera w/ Receiver

Your own full-color indoor video monitoring/security system is only seconds away! The compact, wall-mountable camera transmits up to 150 feet for convenient viewing on a standard TV or recording on a standard VCR.



Includes: camera, receiver, remote control, power adapters and RCA cables

| Part No. | Description | Price |
|----------|--|---------|
| 23375CX | Wireless camera w/ receiver & remote | \$55.95 |

DigiVue™ Digital Surveillance System

This new high-speed PCI video capture card comes with 4-channel video and 1-channel audio input that provides superb digital images from multiple cameras and remote surveillance. Add up to 4 cards per system controlling up to 16 cameras.



- Input signal: 4 video, 1 audio synchronized mono (with sound card)
- Display: 1/4/9/16/full screen
- Display and record: 60 frames per second (per card)
- Record mode: event/continuous/scheduled
- Enhanced MPEG4 format
- Time/date stamp
- Color adjust: adjustable light, contrast, hue, saturation
- Resolution: 160 x 120 up to 640 x 240
- Multitask: monitoring, recording, PTZ control, remote, back-up
- Motion detection: 16 zone x multi area for each camera
- Size: 4.9"L x 3.6"H
- Storage: HDD, VDRAM, CD-RW, DAT, ZIP
- Support internet monitoring: client software, explorer, or windows media player

Includes: CD-ROM software and drivers

Minimum system requirements: Pentium® III/800MHz, 128 MDRAM, 32M AGP video card or above (recommend Pentium® 4/1.8GHz, 64M AGP video card)

| Part No. | Product No. | 1 | 4 |
|----------|------------------|----------|----------|
| 262019CX | EDV-XVIEW4 | \$237.55 | \$225.95 |

Cable Assembly (75Ω RG59/U BNC – BNC)

| Part No. | Length | 1 | 10 | 50 | 100 |
|----------|------------|---------|---------|--------|--------|
| 262730CX | 25' | \$10.45 | \$10.25 | \$9.95 | \$9.50 |
| 262748CX | 50' | 17.05 | 16.25 | 15.45 | 14.69 |
| 262764CX | 100' | 30.39 | 28.89 | 27.45 | 25.99 |

2.4GHz Wireless Antenna Booster

Extend Video Transmitting Distance

- Output power: 700mW (±10%)
- Input power: 10mW – 60mW
- Consumption 350mA
- Impedance output: 50Ω typical (to antenna)
- Frequency: 2400MHz – 2.5GHz
- Size: 2.2"L x 2.0"W x 0.8"H

215175CX



179872CX



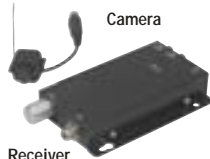
Includes: 9VDC @ 800mA power supply

179864CX: For use with 2.4GHz cameras, transmitters, and receivers • Gain: 3dB; unidirectional

| Part No. | Description | 1 | 10 |
|----------|--------------------------------|----------|----------|
| 215175CX | Antenna booster | \$199.95 | \$179.95 |
| 179864CX | 2.4GHz SMA RF antenna | 15.95 | 14.35 |
| 179872CX | Wireless extension cable | 10.99 | 9.89 |

Mini Wireless Color Camera

Now you can place a color video camera with sound almost anywhere! This super-small (1" x 3/4" by 7/8") 1/4 ounce, 3 Lux wireless camera and receiver combo delivers sharp, full-motion video images at 380 lines of resolution. With its 150-foot (unobstructed) range, light weight, and 9-volt battery power, you can now add video capability to a world of hobby applications.



| Part No. | Description | Price |
|----------|-----------------------------|---------|
| 249025CX | Wireless color camera | \$89.95 |

Phone 1-800-831-4242

Fax 1-800-237-6948

Order Anytime 24x7x365

Mount your video camera almost anywhere

As steady as a tripod, the Window Camera Mount lets you anchor that video camera to any glass surface at any height.

Mount your video or CCTV camera on any window or other non-porous surface, and capture what you've never been able to before. This heavy-duty metal mounting bracket attaches securely to any glass surface with a strong lever-activated 3.25" neoprene suction cup. Mount your camera onto the tripod-style screw. Adjust to any position, and you're ready to shoot hands-free. It's perfect for temporary surveillance of your business or home. For cameras up to 3 lbs.



Mounts easily to your car window

| Part No. | Description | 1 | 5 |
|----------|--------------------------------|---------|---------|
| 222746CX | CCTV camera window mount | \$39.95 | \$34.95 |

12 Version Camera Mounting Kit

A unique component system allows you to build one of twelve versions for today's smaller cameras. Quality ball housing provides 120° tilt and 360° camera rotation. Shafts are 1/2" dia. Vinyl cover adds a finished and professional look.

PANAVISE



224354CX (Kit)

- Wall, ceiling and T-Bar clip mounting
- Shafts: 2" (50.8mm), 4" (101.6mm) or 6" (152.4mm) long
- Knob & set screw adjustment CCTV mounts

| Part No. | Product No. | Description | Price |
|----------|-------------|-------------------------|---------|
| 224354CX | 845-246 | CCTV mounting kit | \$16.95 |

Optional Accessories

| Part No. | Product No. | Description | Price |
|----------|-------------|-------------------------------|--------|
| 224389CX | 860 | Tri-foot base (not shown) .. | \$7.49 |
| 224371CX | 861 | Square base (not shown) | 6.29 |
| 224362CX | 862W | J-Box plate (not shown) | 8.95 |

Mini Indoor Pan & Tilt Mechanism Continuous Pan

- Automatic scanning: 0° – 355° angular travel; pan clockwise and counter-clockwise
- Manual tilt: 0° – 90°
- Pan speed: 5°/sec.
- Maximum load: 4.4 lbs.
- Power consumption: 1 watt
- Size: 2.5"Dia. x 2.4"H
- Warranty: 2 years continuous use
- Weight: 0.4 lbs.



Camera not included

Includes: 24V @ 150mA power supply, wall mount bracket and mounting hardware

| Part No. | Description | 1 | 10 |
|----------|---------------------|---------|---------|
| 215407CX | Mini pan/tilt | \$49.95 | \$44.95 |

Black & White CCD Camera with 6" Monitor

Camera: EIA Format

- 512(H) x 492(V)
- 1/3" CCD image sensor
- 380 TV line res.
- 6 IR LED light for view in the dark application
- 15.734kHz horizontal synch. frequency
- 2:1 interlace scanning system
- 1/100,000 second electronic shutter
- 3.6mm lens with F2.0 • S/N ratio: 48dB
- Video output: 1Vp-p, 75Ω
- Audio output: 2Vp-p, 50Ω maximum • 0 lux at 2M
- BNC connector for video & RCA connector for audio
- Power supply: 12-15V @ 130mA • FOV: 92°
- Size: 2.2"W x 2.8"D x 2.1"H

Includes: Camera bracket

Monitor: EIA Format

- 6" 2-channel flat screen monochrome monitor
- Vertical hold, brightness and contrast adjustment knobs at rear of monitor
- Size: 6.7"W x 7.2"D x 5.2"H • Weight: 7.7 lbs.

Includes: 20M audio/video cable, manual and 15V @ 1A center positive power supply

| Part No. | Description | 1 | 10 |
|----------|-------------------------|----------|----------|
| 170616CX | Camera w/ monitor | \$159.95 | \$143.95 |

Mini Dome Color Camera

NTSC Format

- Perfect for ceilings
- 1/4" CCD image sensor
- 512(H) x 492(V)
- 330 horizontal line res.
- S/N ratio: 46dB
- 15.73kHz horizontal synch. frequency
- Scanning system: 2:1 interlace
- Up to 1/96,000 second electronic shutter
- 3.6mm lens with F2.0 • Video output: 1Vp-p, 75Ω
- Power supply: 12VDC @ 160mA (recommend P/N 162996CX, pg 149)
- 2 lux/F2.0 • FOV: 92°
- Size: 3.5"Dia. x 2.3"H

Includes: Mounting hardware

| Part No. | Description | 1 | 10 |
|----------|------------------------|----------|----------|
| 171037CX | Mini-dome camera | \$139.95 | \$125.95 |

Monitor/TV Wall Mount Brackets

- 95° swivel
- Assembly required
- Requires unit base to be mounted securely to wall stud
- Wall mount screws not included
- Supports up to 66 lbs. • Weight: 9.0 lbs.

| Part No. | Description | 1 | 10 |
|----------|-----------------------------|---------|---------|
| 181817CX | 12"-18" TV wall mount | \$29.95 | \$27.95 |

Mounting Brackets for Enclosed Camera

- Material: plastic
- Base mounted w/ 3 screws
- Swivel angle: 360° • Tilt angle: 90°
- For use w/ enclosed cameras (P/Ns 150404CX and 169404CX, right)

| | | |
|-----------|----------------|----------------------|
| 171002CX: | • Color: ivory | • Max load: 11 lbs. |
| 170982CX: | • Color: white | • Max load: 6.6 lbs. |

| Part No. | Mfr. Cross Ref. No. | Ht. (in.) | 1 | 10 |
|----------|---------------------|-----------|--------|--------|
| 171002CX | 15-B002L | 6.4 | \$5.49 | \$4.95 |
| 170982CX | 15-B004 | 2.0 | \$6.49 | \$5.95 |

Color Camera

- 1/3" Panasonic CCD image sensor
- Image size: 4.82mm (H) x 3.64mm (V)
- More than 380TV lines horizontal resolution
- 15.734kHz synch. freq.
- Scanning system: 2:1 interlace
- S/N ratio: more than 46dB
- BNC connector for video • FOV: 42.6°
- Video output: 1Vp-p, 75Ω • 1.0 lux / F1.4
- Size: 4.0"L x 2.2"W x 2.0"H • Weight: 0.9 lbs.
- 512(H) x 492(V) NTSC signal format
- Auto iris: DC driver / video driver switchable

Requires: 12VDC @ 140mA power supply (recommend P/N 162996CX, pg 149)

| Part No. | Description | 1 | 10 |
|----------|------------------------|----------|----------|
| 171248CX | Color CCD camera | \$224.95 | \$201.95 |

Night Vision Infrared Lighted Camera

EIA Format

- Adjustable camera lens
- Auto iris controlled
- Built-in voltage regulator
- Horizontal synch. frequency: 15.734kHz
- 6 infrared LEDs for night vision
- Scanning system: 2:1 interlace
- Video output: 1Vp-p, 75Ω • Lens: 3.6mm
- Audio output: 2Vp-p max. • 380 TV line resolution
- FOV: 92° • 0.1 lux with F2.0
- Matching conn.: RG59 BNC (P/N 71271CX, pg 85)
- Size: 2.9"L x 2.0"W x 2.0"H • Weight: 1.2 lbs.

Includes: 12VDC @ 500mA power supply and wall mounting bracket

| Part No. | Description | 1 | 10 |
|----------|-------------------------------|----------|----------|
| 150404CX | Infrared lighted camera | \$119.95 | \$109.95 |

Mini Alarm Siren

- Sound pressure: 108dB
- Output frequency: 3000Hz
- Rated: 2-12VDC @ 300mA
- Adjustable mounting plate
- 16" color coded connector wires, tinned
- Size: 2.8"Dia. x 2.5"L

| Part No. | Description | 1 | 10 | 50 |
|----------|-------------------|--------|--------|--------|
| 148152CX | Alarm siren | \$7.95 | \$6.79 | \$5.09 |

Audio/Video Adapters (CAT 5 UTP)

- Converts impedance of video/audio signals to 100Ω for transmission over CAT 5 UTP cable
- Supports both NTSC or PAL video signals
- Built-in impedance matching device and filter for video and audio signal transmission
- Use with existing premises wiring and wall jacks for easy and cost effective installation
- Video transmission distance: 1000' color/2000' B/W
- 210471CX: Signal pair: video (BNC), CAT pair 1 (RJ45)
- 220880CX: Signal pairs: video (BNC), CAT pair 4 (RJ45); audio 1 (RCA); CAT pair 3 (RJ45); audio 2 (RCA), CAT pair 2 (RJ45)

Includes: 1 RCA to BNC adapter & 2 mounting screws

| Part No. | Connector Type | 1 | 10 |
|----------|--------------------|---------|---------|
| 210471CX | BNC/RJ45 | \$29.95 | \$26.95 |
| 220880CX | BNC/RCA/RJ45 | 42.95 | 38.95 |

USB Camera on page 167.

Black and White Camera with 8mm Lens

- 1/3" CCD image sensor
- Horizontal res: 420TV lines
- Min. illumination: 0.1lux
- Horizontal freq.: 15.734kHz
- 510(H) x 492(V) EIA signal format
- Vertical freq.: 60Hz • Clock freq.: 19.0699MHz
- Scanning system: 2:1 interlace • S/N ratio: 48dB
- Electronic shutter: 1/100,000 sec.
- Auto iris lens: DC drive / AES / video drive
- Video out.: 1Vp-p, 75Ω • Audio out.: 2Vp-p max., 50Ω
- Backlight compensation and auto gain control selectable
- Power requirements: 12VDC@100mA; 24VAC
- Size: 4.5"L x 2.0"W x 2.0"H • Weight: 0.8lbs.

| Part No. | Description | 1 | 10 |
|----------|-----------------------------|----------|---------|
| 245041CX | Black & white CCD camera .. | \$109.95 | \$99.95 |

Solar Outdoor Security Light

Dark spots around your business, house or neighborhood are vulnerable to vandalism or burglary. To protect your property, equip it with our new outdoor security lights and motion sensors. All you need are simple tools to mount the unit to the wall. No complicated wiring or electrician needed. The built-in batteries are rechargeable by sunlight, so if the main power goes out you still have security lighting. The solar panel, which has a 12' cord, can be positioned for optimum light exposure.

- Lights up to 60 times on a single charge
- Charges by day, lights by night
- Complete with built-in motion detector, rechargeable battery and bright halogen light
- Easy to install • Weight: 7.1 lbs.

| Part No. | Description | 1 | 10 |
|----------|----------------------|----------------------------|---------|
| 219580CX | Security light | \$79.95 \$71.95 | \$64.75 |

Outdoor Metal Camera Enclosures

- Plate glass: 3mm thick
- Outdoor use
- 170931CX: without heater
- Clear window area: 2.5"W x 2.3"H
- Max. camera size: 4.0"L x 2.4"W x 2.4"H
- Size: 16.0"L x 4.9"W x 4.9"H • Weight: 2.8 lbs.
- 170940CX: w/ heater (keeps optics from fogging)
- Clear window area: 3.5"W x 3.1"H
- Max. camera size: 6.5"L x 3.2"W x 3.2"H
- Size: 11.0"L x 3.6"W x 3.6"H • Weight: 6.8 lbs.

| Part No. | Description | 1 | 10 |
|----------|--------------------------------|--------------------------|---------|
| 170931CX | Camera housing | \$29.95 | \$26.95 |
| 170940CX | Camera housing w/ heater | \$69.95 62.95 | 59.89 |

30-Day Money-Back Guarantee

If you're not completely satisfied with your order, we'll take it back!

Details on page 241.

Professional Electronic Technician Tool Kits for Every Situation!

25-Piece Field Repair Tool Kit

Two-in-one design allows user to carry a tool case and a briefcase in one. Features a separate case for tools that attaches to the briefcase with zippers.

- In addition to the tools listed in the matrix below, the kit includes:
 - 5" snipe nose pliers
 - Alignment driver
- Size: 14.2"W x 11.0"D x 4.7"H • Weight: 6.6 lbs.



| Part No. | Description | 1 | 5 |
|----------|----------------------------|----------------------------|---------|
| 218211CX | Master electronic tool kit | \$59.95 \$54.95 | \$49.46 |

28-Piece Cellular Phone Services Tool Kit

This kit is perfect for mobile phone repair.

- In addition to the tools listed in the matrix below, the kit includes:
 - 4" micro cutting pliers
 - 5" snipe nose pliers
 - Hot air tip
 - Self igniting micro torch
 - S-needle tip
- Size: 11.9"L x 9.8"W x 1.9"H • Weight: 3.2 lbs.



| Part No. | Description | 1 | 5 |
|----------|-------------------------|----------------------------|---------|
| 218202CX | Cellular phone tool kit | \$59.95 \$48.59 | \$44.15 |

51-Piece Tech Tool Kit

Essential Kit for Electronic Machine Maintenance and Repair Jobs!

- In addition to the tools listed in the matrix below, the kit includes:
 - 2 nut drivers
 - Solder pen
- Case features removable pallets, a combination lock and a cushioned black plastic handle
- Size: 12.5"L x 17.5"W x 3.5"H • Weight: 10.4 lbs.



| Part No. | Description | 1 | 5 |
|----------|-------------------|---------|---------|
| 26681CX | 51-piece tool kit | \$94.95 | \$75.95 |

27-Piece Technician's Tool Kit

All the essential technician's tools in a durable canvas carrying case.

- In addition to the tools listed in the matrix below, the kit includes:
 - 5" precision range side cutting pliers
 - 5.3" precision range long nose pliers
 - Solder wick
 - Alignment driver
 - Nut screwdriver (1/4")
- Size: 16.2"W x 13.0"D x 3.0"H • Weight: 7.1 lbs.



| Part No. | Description | 1 | 5 |
|----------|-----------------------|---------|---------|
| 218229CX | Technician's tool kit | \$99.95 | \$89.96 |

55-Piece Tech Tool Kit

An assortment of tools for general & precision work for technicians, engineers, students, etc.

- In addition to the tools listed in the matrix below, the kit includes:
 - Screwdriver handle
 - 6-piece mini-hammer set
 - 5 piece of double edge blade
 - PLCC extraction tool
- Carrying case has outer velcro pockets to store paperwork, etc.
- Complete your assortment with a multimeter (See pages 194-198)
- Size: 17.6"L x 12.8"W x 4.0"H • Weight: 9.2 lbs.



| Part No. | Description | 1 | 5 |
|----------|-------------------|----------|----------|
| 136311CX | 55-piece tool kit | \$124.95 | \$112.46 |

57-Pc. Master Electronics Tool Kit

Simply every tool needed for field repair or installation. All in a handsome lockable case, with room for spare parts or special equipment.

- In addition to the tools listed in the matrix below, the kit includes:
 - 5" & 6" side cutter
 - 5" & 6" long nose pliers
 - 8" combination pliers
 - 9.5" water pump pliers
 - Testing driver
 - Alignment driver
 - Solder wick
 - Parts tube
 - PVC insulated tape
 - 5-piece file set
 - Oil can
 - 6" stainless scissors
 - Carpenter hammer
- Carrying case has two removable pallets, adjustable compartments, and combination locks
- Size: 18.0"W x 13.0"D x 4.0"H • Weight: 16.0 lbs.



| Part No. | Description | 1 | 5 |
|----------|----------------------------|----------|----------|
| 218245CX | Master electronic tool kit | \$124.95 | \$117.95 |

100-Piece Professional Electronics Tool Kit

Kit for Field Technicians and Engineers!

- In addition to the tools listed in the matrix left, the kit includes:
 - Computer/polarity circuit tester
 - Mini vacuum cleaner
 - Cassette head cleaning fluid
 - 3.6V cordless screwdriver kit (bits included)
- Aluminum case features removable pallets, surface-type locks, and black plastic handle
- Size: 18.0"L x 14.0"W x 6.0"H • Weight: 15.5 lbs.



| Part No. | Description | 1 | 5 |
|----------|--------------------|----------|----------|
| 242851CX | 100-piece tool kit | \$199.95 | \$189.95 |

114-Piece Tech Service Tool Kit

- In addition to the tools listed in the matrix left, the kit includes:
 - 40-pc socket pack
 - 6" side cutter
 - 6" long nose plier
 - 6" slip joint plier
 - carpenter hammer
 - 3 piece trimmer set
 - stainless steel spring hook
 - solder wick
 - 8" combination plier
 - 2 removable pallets
- Size: 18.5"L x 13.8"W x 6.7"H • Weight: 22.8 lbs.



| Part No. | Description | 1 | 5 |
|----------|--------------------|----------|----------|
| 149024CX | 114-piece tool kit | \$279.95 | \$251.99 |

Quick-Reference of Professional Tool Kit Contents

| Parts included in kits | 218211CX | 218229CX | 218202CX | 26681CX | 136311CX | 218245CX | 242851CX | 149024CX |
|--------------------------|----------|-----------|----------|---------|-----------|----------|----------|----------|
| 3-prong holder | | | | | 1 | 1 | 1 | 1 |
| Anti-static strap | | | | | 1 | | 1 | 1 |
| Brush | | 1 | | 1 | 1 | 1 | 1 | 1 |
| Crimping tool | | 1 (7-way) | | | 1 (7-way) | 1 | 1 | 1 |
| Desoldering pump | 1 | 1 | | 1 | 1 | 1 | 1 | 1 |
| Digital Multimeter | | 1 | | 1 | | | 1 | |
| Drill set | | | | | | | | 1 |
| Files, needle | | 2-pc | | 2-pc | | | 6-pc | 5-pc |
| Flashlight | | 1 | | | 1 | 1 | 1 | 1 |
| Forceps | | | | | | | | 1 |
| Heat sink | | | | | 1 | 1 | | 1 |
| IC extractor | 1 | 1 | | | 1 | 1 | | 1 |
| Inspection mirror | | | | | | 1 | | 1 |
| Measuring tape, 10-foot | 1 | | | 1 | | 1 | | 1 |
| Pliers, 8" lineman | 1 (6") | | | | 1 | | 1 | |
| Pliers, bent needle nose | | | | 1 | 1 | 1 | 1 | 1 |
| Pliers, diagonal cutter | 1 | | | 1 | 1 | | 1 | 1 |
| Pliers, flat nose | | | | 1 | 1 | | 1 | 1 |
| Pliers, needle nose | | | | | | | | |
| Pliers, snipe nose | | | 1 | | | | | 1 |
| Scissors | | | | 1 | | 1 | 1 | |
| Screwdriver set | 6-pc | 7-pc | 12-pc | 8-pc | 3-pc | 8-pc | 12-pc | 9-pc |
| Screwdrivers, precision | | | 2-pc | 6-pc | 6-pc | 6-pc | 6-pc | 6-pc |
| Solder core | 1 | 1 | 1 | | 1 | 11 | 1 | 1 |
| Soldering aid kit, 3-pc | | | 1 (6-pc) | 1 | 1 | 1 | 1 | 1 |
| Soldering iron | 1 (30W) | 1 (30W) | | 1 | 1 (30W) | 1 (30W) | 1 (30W) | 1 (25W) |
| Soldering stand | | 1 | | 1 | | 1 | 1 | |
| Tape, electrician | | 1 | | | | | 1 | 1 |
| Tweezers | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| Utility components box | | 1 | | 1 | | 1 | 1 | 1 |
| Utility knife | 2-in-1 | 1 | | 1 | 1 | 1 | 1 | |
| Wire stripper | | | | | | | | 1 |
| Wrench, adjustable | 1 | 1 | | | 1 | 1 | 1 | 1 |
| Wrench, hex key | 7-pc | 7-pc | | 7-pc | 7-pc | 7-pc | 7-pc | 7-pc |
| Wrench set | | | | | | 6-pc | 5-pc | 10-pc |
| Total Pieces | 25 | 27 | 28 | 51 | 55 | 57 | 100 | 114 |
| Price | \$54.95 | \$99.95 | \$48.59 | \$94.95 | \$124.95 | \$124.95 | \$199.95 | \$279.95 |

Economy Tool Kits for Every Budget!

8-Piece Compact Tool Kit

The perfect size and tools for quick repairs.

- 5" side cutter
- 5" long nose pliers
- PRO-SOFT 3 x 75mm slotted screwdriver
- PRO-SOFT #0 x 75mm Phillips screwdriver
- Stainless tweezers
- Solder core • Desoldering pump
- Portable gas soldering iron with torch tip
- Size: 8.1"L x 5.7"W x 1.4"H • Weight: 1.2 lbs.



SALE

| Part No. | Description | 1 | 5 |
|----------|--------------------------------|----------------------------|---------|
| 218181CX | 8-piece compact tool kit | \$19.95 \$16.39 | \$14.89 |

11 & 12-Piece Lightweight Computer-Service Tool Kits

- Both kits include:
 - 2 nut drivers: 3/16", 1/4"
 - 3-claw parts holder
 - 1-pc hex key wrench
 - IC extractor
 - 4-pc screwdriver set
 - Tweezers

167206CX: 11-Piece Tool Kit

- In addition this kit includes:
 - Clear components, tube holder
- Size: 8.5"L x 5.9"W x 1.3"H
- Weight: 1.1 lbs.



167206CX

14189CX: 12-Piece Tool Kit

- In addition this kit includes:
 - 14-16 pin IC inserter/straightener
- Size: 9.0"L x 5.8"W x 1.3"H • Weight: 1.2 lbs.



14189CX

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------------|---------|---------|--------|
| 167206CX | 11-piece tool kit | \$12.95 | \$11.49 | \$9.95 |
| 14189CX | 12-piece tool kit | 16.95 | 15.26 | 13.73 |

20-Piece SAE Computer Tool Kit

- The kit includes:
 - 1-pc hex key wrench
 - 30W soldering iron
 - Adjustable wrench
 - Needle nose plier
 - 6-pc screwdriver set
 - 6' solder – Tweezers
 - 8" wire cutter/stripper
 - Clamping tweezers
 - 3-pronged parts retriever
 - Spare parts tube – IC extractor
 - Flashlight with battery – Heavy duty molded case
 - 2 nut drivers (1/4" & 3/16")
- Size: 11.9"L x 9.2"W x 2.0"H • Weight: 3.5 lbs.



| Part No. | Description | 1 | 10 | 100 |
|----------|-------------------------|---------|---------|---------|
| 170966CX | Computer tool kit | \$24.95 | \$22.46 | \$20.21 |

24-Piece PC Premium Tool Kit

- 3.2mm x 75mm slotted screwdriver
- #0 x 75mm Phillips screwdriver
- 3 prong holder
- Spring tweezer
- Spare parts tube
- IC extractor • Torch
- Extension bar for ratchet bits
- Adjustable ratchet screwdriver
- Side cutter pliers • Long nose pliers
- 5mm and 7mm slotted bit
- #1 and #2 Phillips bit
- T10, T15, T20, T25, and T30 Torx bit
- 1/4" and 3/16" nut • Socket adapter
- Size: 8.4"L x 5.9"W x 1.4"H • Weight: 1.3 lbs.



| Part No. | Description | 1 | 5 |
|----------|---------------------------------|---------|---------|
| 226085CX | 24-piece premium tool kit | \$19.95 | \$18.95 |

26-Piece SAE Hobby Tool Set

- 4-1/2" long nose pliers
- 4-1/2" diagonal cutting pliers
- #1 & #2 Phillips bits
- #1 & #2 pozi bits
- 3/16" & 1/4" slotted bits
- Hex to 1/4" driver adapter
- T-10, T-15, and T-20 Torx bits • Tweezers
- Driver handle • Compact carrying case
- 3" extension bar for 1/4" drive
- 3 slotted and 3 screw driver precision set
- 3/16", 1/4", 11/32" and 3/8" sockets for 1/4" drive
- Size: 12.0"L x 9.0"W x 2.0"H • Weight: 1.5 lbs.



| Part No. | Description | 1 | 10 | 25 |
|----------|------------------------|---------|---------|---------|
| 170069CX | 26-pc. SAE tool set .. | \$17.95 | \$16.16 | \$13.69 |

26-Piece Metric Hobby Tool Set

- 6 screwdrivers:
 - Phillips #0, #1, slotted 0.05", 0.08", 0.09", 0.12"
- 10 bits: 5mm, 6mm, #No.1, #No.2, No.1, No.2, T-10, T-15, T-20, socket adapter
- Stainless steel tweezers • Sockets: 5, 6, 8, 10mm
- Extension bar • Handle • 4" side cutter
- 4" long nose pliers • Plastic carrying case
- Size: 6.4"L x 4.1"W x 2.0"H • Weight: 1.2 lbs.



| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------------|--------|--------|--------|
| 99629CX | 26-piece tool set | \$8.95 | \$8.06 | \$7.25 |

40-Piece Electronic Tech Tool Kit

- The kit includes:
 - Wire cutters/stripper
 - Adapter bit for sockets
 - Pocket clip screwdriver
 - Potentiometer alignment tools
 - T10-T25 reversible Torx screwdriver bits
 - 3/16"-1/2" S.A.E. nut driver sockets
 - 6mm-12mm metric nut driver sockets
 - Slotted and Phillips screwdriver bits
 - 10-pc screwdriver set
 - Extra long 3-claw parts holder
 - IC inserter w/ pin straightener – IC extractor
- Size: 9.5"L x 6.8"W x 1.4"H • Weight: 1.7 lbs.



| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------------|---------|---------|---------|
| 119183CX | 40-piece tool kit | \$21.95 | \$19.76 | \$17.78 |

Professional Tool Case

- Aluminum framed
- Padded interior and adjustable dividers (6 sections)
- Detachable tool organizer for easy access
- Color: black with aluminum trimmings
- Size: 18"L x 13"W x 6"H
- Weight: 8.1 lbs.



| Part No. | Description | 1 | 10 |
|----------|------------------------------|---------|---------|
| 149016CX | Professional tool case | \$41.95 | \$37.76 |

Aluminum Tool Case

This heavy-duty case is made of lightweight durable aluminum. Two inside panels and adjustable compartments easily carry hand tools, small soldering equipment, hand-held test equipment, and more.

- Size: 19"L x 14"W x 6"D



| Part No. | Description | 1 | 5 |
|----------|-----------------|---------|---------|
| 261884CX | Tool case | \$51.39 | \$44.15 |

Heavy-Duty Tool/Equipment Case

Made of lightweight aluminum, this tool case is designed to take rough field use. Case includes tool pallet, egg carton foam lid, and 2.5" thick pre-cut foam bottom. Ideal for carrying fragile instruments, test equipment, and small hand tools.

- Size: 19"L x 14"W x 6"D



| Part No. | Description | 1 | 5 |
|----------|---------------------------|---------|---------|
| 261876CX | Tool/equipment case | \$51.39 | \$44.15 |

Kwik Change Tool/Parts Tote

Versatile storage tote for organized storage space. Front drop panel reveals four slide-out storage boxes and includes two interchangeable racks and one double deep rack. Bulk storage beneath lid for larger tools and exterior rack for small tool storage. Ruler on front for added convenience.

- Size: 20.5"H x 12"W x 14.5"D



| Part No. | Description | 1 | 5 |
|----------|-----------------------|---------|---------|
| 261892CX | Tool/parts tote | \$49.85 | \$47.35 |

2-In-1 Zippered Tool Bag

A high-quality tool tote case that can be used as two separate bags or zipped together as one case. The first bag has two large pouches for documents & paperwork or large items. The second bag contains 20 pockets for tools.

- Size: 16"L x 12"W x 2.5"D



| Part No. | Description | 1 | 5 |
|----------|----------------------|---------|---------|
| 261868CX | Tool/tote case | \$24.25 | \$22.09 |

We'll Send It Today!



Over 99% of our products are in stock!
Just place your order by 6PM EST for same business day shipment.

17-Piece Offset Ratchet and Socket Driver Set **SALE**

This offset ratchet and socket driver set includes 6 hexagon sockets made from quality hardened carbon steel. The handle features a 1/4" male head drive to accommodate the accompanying bits & sockets.

- Phillips bits: #1 and #2 • Pozi bits: #1 and #2
- Torx bits: T10, T15 & T20 • Slotted bits: 4, 5 & 6mm
- Hex sockets: 3/16", 7/32", 1/4", 5/16", 11/32" & 3/8"
- Reversible driver handle with 1/4" male head

| Part No. | Description | 1 | 5 |
|----------|-------------------------|--------------------------|--------|
| 226069CX | Offset ratchet & socket | \$7.49 \$5.95 | \$5.36 |

Flexible Ratchet Driver Set

With the mini-ratcheting handle and 7.5" flexible shaft, you can loosen or tighten those hard-to-reach screws.

Includes: Flexible shaft (190mm), mini ratchet handle that has forward, reverse and conventional settings, slotted bits (4mm, 5mm & 6mm), Phillips (#1 & #2 bits), Pozi (#1 & #2 bits), and Torx (10, 15 & 20mm bits)

| Part No. | Description | 1 | 5 |
|----------|---------------------|--------|--------|
| 223802CX | Ratchet drivers set | \$9.35 | \$8.25 |

Twin Wrench Driver Set

The handle of this twin wrench driver set has two tips, horizontal and vertical for those hard-to-reach areas.

- Non-slip double ended driver
- Three slotted bits: 4mm, 5mm, and 6mm
- Phillips bits: #1 and #2 • Pozi bits: #1 and #2
- Torx bits: 10mm, 15mm, and 20mm

| Part No. | Description | 1 | 10 |
|----------|------------------------|--------|--------|
| 223811CX | Twin wrench driver set | \$4.65 | \$3.99 |

29-Piece 1/4" Driver Socket Wrench Set **SALE**

- Flank driver socket (6 pt): 4, 4.5, 5, 5.5, 6, 7, 8, 9, 10, 11, 12 and 13mm
- Slotted bit: 4, 5.5 & 7mm
- Hex bit: 3, 4, 5, 6 & 8mm
- Phillips bits: #1 and #2
- Pozi bits: #1 and #2
- 2" extension bar • Sliding T bar
- Universal joint • Extension bar with spinner handle
- Pear-type ratchet handle with quick release
- Size: 8.7"L x 4.3"W x 1.6"H • Weight: 1.8 lbs.

| Part No. | Description | 1 | 5 |
|----------|--------------------|----------------------------|---------|
| 226229CX | 1/4" driver socket | \$29.95 \$27.95 | \$25.16 |

25-Piece Screwdriver Grab Bag

25 assorted sizes and types of screwdrivers in a box. Types may include slotted, Phillips, Torx or star.

| Part No. | Description | 1 | 10 |
|----------|-----------------------|---------|---------|
| 235070CX | Assorted screwdrivers | \$15.99 | \$14.99 |

Xcelite® Flat-Tip Allen Hex Socket-Type Screwdriver Set

- Inch sizes
 - Clear plastic case
- Kit includes:** Regular handle, extension bar, .05, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16 blades

| Part No. | Description | 1 | 5 |
|----------|--------------------------|----------------------------|---------|
| 217912CX | 11-piece screwdriver set | \$39.95 \$35.49 | \$32.29 |

Xcelite® 9-Piece Screwdriver Set

- Handles more jobs with fewer tools, saves bench space and lightens service kits
- Equipped with remarkable black, "piggyback" torque amplifier handle
- Color coded handles • Clear plastic case

Kit includes: Green 3/32", red 1/8", black 5/32", orange 3/16", amber 1/4", blue #0 Phillips, brown #1 Phillips, amber #2 Phillips, and black torque amplifier handle

| Part No. | Product No. | Description | 1 | 10 |
|----------|-------------|-------------|----------------------------|---------|
| 218069CX | PS88 | 9-piece set | \$24.95 \$21.65 | \$19.69 |

6-Pc Long-Neck Screwdriver Set

- Three slotted: 0.09"Dia. x 6.6"L, 0.12"Dia. x 6.6"L, 0.16"Dia. x 9.6"L
- Three Phillips: No.0, 0.12"Dia. x 6.64"L; No.1, 0.16"Dia. x 9.61"L; No.2, 0.09"Dia. x 6.65"L

| Part No. | Description | 1 | 10 | 50 |
|----------|-----------------------|--------|--------|--------|
| 99451CX | 6-pc. screwdriver set | \$8.95 | \$8.06 | \$7.25 |

JAMECO® Pocket Screwdriver

- Phillips/Flat head**
- Pocket screwdriver with Phillips and slotted
 - Pen clip for pocket storage • Size: 6"L

| Part No. | Description | 1 | 10 | 100 |
|----------|--------------------|--------|--------|--------|
| 127271CX | Pocket screwdriver | \$1.55 | \$1.45 | \$1.19 |

33-Piece Ratchet Driver Set

High torque reversible ratchet handle with forward, reverse, and conventional settings. Magnetic shaft holds steel screws to bit for easy positioning. Bits can easily be stored in handle for easy transport.

- Torx bits: T6, T7, T8, T9, T10, T15 and T20
- Nut bits: 3/16", 1/4", 9/32", 5/16", 11/32" and 7/16"
- Hex bits: 1.5, 2.0, 2.5, 3, 4, 5, 6 and 8mm
- Pozi bits: #0, #1, #2 • Phillips bits: #0, #1, #2
- Slotted bits: 3, 4.7 and 6.3mm • 50mm adapter
- Size: 9.1"W x 2.0"D x 7.6"H • Weight: 1.7 lbs.

| Part No. | Description | 1 | 5 |
|----------|-----------------------------|---------|---------|
| 226051CX | 33-piece ratchet driver set | \$27.95 | \$19.95 |

11-Pc Precision Screwdriver Set

- 0.9, 1.2, 1.4, 1.8, 2.4 and 3mm slotted screwdrivers
- Phillips #00, #0 and #1 screwdrivers
- Awl
- Magnetic pick-up

| Part No. | Description | 1 | 5 |
|----------|-----------------------|--------|--------|
| 226093CX | Precision screwdriver | \$4.49 | \$4.29 |

7-Piece Insulated Screwdriver Set

- Tapered handle for sure grip
 - Precision ground shank
 - Hardened, magnetic tips
- Includes:** 0.4/0.8/1.0/1.2mm slotted; #0/1/2 Phillips

| Part No. | Description | 1 | 5 |
|----------|-----------------|---------|---------|
| 261999CX | Screwdriver set | \$19.25 | \$17.59 |

6-Pc Precision Torx Screwdriver Set

- T5 and T6 x 50mm Torx screwdrivers
- T7, T8, T9, T19 x 50mm Torx hex screwdrivers

| Part No. | Description | 1 | 5 |
|----------|----------------------------|---------|---------|
| 226106CX | Precision TORX screwdriver | \$12.95 | \$12.29 |

6-Pc Precision Screwdriver Sets

34041CX includes: 3/64", 1/16", 5/64", 5/32", 1/8" & 9/64" slotted screwdrivers

34059CX includes: 3/64"#0, 1/16"#0, 5/64"#0, 3/32"#0, 1/8"#1 and 9/64"#1 Phillips screwdrivers

| Part No. | Description | 1 | 10 | 50 |
|----------|--------------|--------|--------|--------|
| 34041CX | Slotted set | \$3.59 | \$3.23 | \$2.91 |
| 34059CX | Phillips set | 3.59 | 3.23 | 2.91 |

6-Piece Screwdriver & Pliers Set

- One micro cutting nipper
- One micro flat nose pliers
- 2 long-neck slotted: 0.12"Dia. x 9.61"L; 0.09"Dia. x 7.64"L
- 2 long-neck Phillips: No.0, 0.12"Dia. x 9.61"L; No.2, 0.09"Dia. x 7.64"L

| Part No. | Description | 1 | 10 | 50 |
|----------|--------------------|---------|---------|--------|
| 99565CX | Screwdriver/pliers | \$13.49 | \$11.49 | \$8.59 |

7-Piece Nut Driver Sets

- Premium hardened steel sockets
 - Large colored handles
- 261850CX: Metric** 5mm, 6mm, 7mm, 8mm, 9mm, 10mm & 11mm
- 261841CX: SAE** 3/16", 1/4", 5/16", 11/32", 3/8", 7/16", 1/2"

| Part No. | Description | 1 | 5 |
|----------|-----------------------|--------|--------|
| 261850CX | Metric nut driver set | \$8.99 | \$8.65 |
| 261841CX | SAE nut driver set | 9.89 | 9.49 |

Jameco's Low-Price Guarantee

We'll match the print advertised price of any like product.

Xcelite® Needle Nose Pliers



217891CX (submini needle nose): Serrated jaws

- Positive gripping of fine wire or subminiature components
- Fine point allows use in confined areas

217963CX: Fine serrated jaws • General purpose

217998CX: Smooth jaws

- General purpose for pick-up and wire forming

| Part No. | Prod. No. | Description | 1 | 10 |
|----------|-----------|---------------------------|---------|---------|
| 217891CX | L4 | 4" mini needle nose..... | \$14.95 | \$13.69 |
| 217963CX | LN55 | 5.5" thin long nose | 14.95 | 13.75 |
| 217998CX | LN54G | 5" thin long nose | 14.95 | 13.46 |

Xcelite® 6-Piece Pliers Kit

- A compact kit designed for an electronics technician or dedicated hobbyist
- Durable pocket-pouch with heavy-duty snaps
- Each professional quality tool features the unique Copaloy rivet for smoother action



Kit includes: 4.5" transverse end-cutting pliers, 4" diagonal-cutting pliers, 5" long-nose pliers with side cutters, 5" fine-tip needle nose pliers, 5" flat-nose pliers, and 5" long-nose pliers

| Part No. | Prod. No. | Description | 1 | 5 |
|----------|-----------|-------------------------|---------|---------|
| 218051CX | C1K | 6-piece pliers kit..... | \$99.95 | \$93.75 |

Precision 5-Piece Stainless Steel Pliers Set



- Spring return
- Insulated handles

Includes:

One 3.5"L micro cutting nippers and one each 4"L micro round nose pliers, long nose pliers, flat nose pliers and bent nose pliers

| Part No. | Description | Wt. (lbs.) | 1 | 10 | 25 |
|----------|-------------|------------|---------|---------|---------|
| 73120CX | 5-piece set | 0.6 ... | \$17.95 | \$16.16 | \$14.54 |

Half-Round Long Nose Pliers

- Drop forged steel
- Heat treated
- Spring return action
- Vinyl grips
- Length: 4.5"
- Knurled jaws



| Part No. | Description | 1 | 10 | 50 | 100 |
|----------|-------------------|--------|--------|--------|--------|
| 177607CX | Half-round pliers | \$4.95 | \$4.49 | \$3.95 | \$3.59 |

5.3" Flat and Half-Round Long Nose Pliers

- Stainless steel
- Spring return
- Durable rubber handles
- 5.3" length w/ 1.4" plier nose

35473CX/35490CX: Knurl jaws

195531CX: Smooth jaws



| Part No. | Description | 1 | 10 | 50 | 100 |
|----------|----------------------|--------|--------|--------|--------|
| 35473CX | Flat long nose | \$5.49 | \$4.99 | \$4.49 | \$3.49 |
| 195531CX | Flat long nose | 4.95 | 4.49 | 3.95 | 3.49 |
| 35490CX | Half round | 5.49 | 4.99 | 4.49 | 3.49 |

5-Piece Pliers Set

- Precision machined heat-treated jaws
- Vinyl insulated handles

Includes: 6.5" needle nose; 7.5" lineman's; 8" slip joint; 8" groove joint & cutting pliers



| Part No. | Description | 1 | 5 |
|----------|------------------|--------|--------|
| 261905CX | Pliers set | \$9.75 | \$9.25 |

5" Cutting Pliers

Recommended for cutting copper and soft lead wires. Ideal for precise circuit board work. Spring loaded.



| Part No. | Description | 1 | 5 |
|----------|----------------------|--------|--------|
| 261809CX | Cutting pliers | \$4.99 | \$4.55 |

Xcelite® Diagonal Cutters

Manufactured from the finest forged alloy steel with polished head and cushion comfort handles, these cutters are designed for the demands of engineers and manufacturing environments.

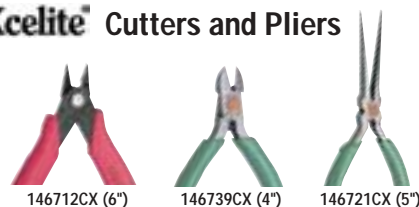
- Flush or semi-flush cutting edge handles most cutting requirements
- Cutting edges machine ground and electronically hardened for extended life
- Forged alloy steel w/ polished head for high durability
- Patented COPALOY rivet construction provides smooth operation and long life
- Handle coil springs for fast cutting action
- ESD safe cushion grips for maximum comfort

217904CX: Flush cutting of leads in restricted spaces; narrow tip gives increased clearance

217955CX: Used for cutting component leads

| Part No. | Product No. | Description | 1 | 10 |
|----------|-------------|--|---------|---------|
| 217921CX | MS54J | 4" oval head-flush cut | \$15.95 | \$14.36 |
| 217955CX | S475JS | 4" relieved head-flush cut | 14.95 | 13.46 |
| 217904CX | MS549J | 4" tapered head-flush cut | 14.95 | 13.46 |
| 217867CX | MS545J | 4" slim line tapered head-flush cut..... | 14.95 | 13.46 |
| 218034CX | MS545 | 4" slim line tapered semi-flush cut..... | 13.95 | 12.99 |

Xcelite® Cutters and Pliers



- Spring returns

146712CX: Micro series wire cutter – flush; 6"

146739CX: Diag. wire cutter – semi-flush; 4"

146721CX: Long needle nose pliers – flat; 5"

| Part No. | Product No. | 1 | 10 | 50 | 100 |
|----------|--------------|--------|--------|--------|--------|
| 146712CX | 170M | \$5.75 | \$5.19 | \$4.69 | \$4.19 |
| 146739CX | MS54V | 13.95 | 12.95 | 11.95 | 10.95 |
| 146721CX | MN7776V | 16.95 | 15.95 | 14.95 | 13.95 |

Xcelite® Shearcutter/Pliers Set

- Improved handle grip for control and comfort
- Non-glare black finish carbon steel
- Size (plier): 5.6"L
- Size (shearcutter): 5.2"L

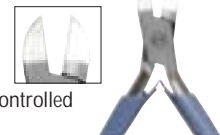


| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 152055CX | S2K | \$15.95 | \$14.95 | \$13.95 |

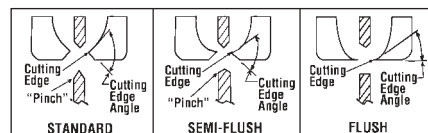
Cutting Pliers

Flush Cut

- Stainless steel
- Side cutting flush cut
- Leaf spring for smooth controlled action



| Part No. | Description | 1 | 5 |
|----------|----------------------|--------|--------|
| 261788CX | Cutting pliers | \$6.95 | \$6.55 |



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Corporate Customers

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4" Diagonal Wire Cutter

- Drop forged steel
- Heat treated
- Vinyl grips
- Spring return action
- Polished head
- Length: 4"



| Part No. | Description | 1 | 10 | 50 | 100 |
|----------|-------------|--------|--------|--------|--------|
| 179901CX | Wire cutter | \$5.49 | \$4.94 | \$4.45 | \$4.00 |

4.3" Diagonal Wire Cutter

- Cuts component wire up to 1.2mm thick
- Stainless steel
- Durable rubber handles
- Jaws are designed for flush cutting
- 4.3"L x 2.1"W with 0.5" cutting blade



| Part No. | Description | 1 | 10 | 50 | 100 |
|----------|-------------|--------|--------|--------|--------|
| 35481CX | Wire cutter | \$5.59 | \$4.99 | \$4.55 | \$3.99 |

5" Diagonal Wire Cutter

- Cuts component wire up to 1.2mm thick and 0.08mm fine wire
- Insulated handles
- Jaws are designed for flush cutting
- 5.0"L x 1.8"W w/ 0.5" cutting blade



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 50 | 100 |
|----------|---------------------|--------|--------|--------|-----|
| 161411CX | Wire cutter | \$7.49 | \$6.74 | \$6.07 | |

5" Wire Cutter/Stripper

- Strips and cuts 20-24 AWG wires
- Insulated grips
- Spring loaded for easy use
- Cutter angled @ 45 degrees for use in tight places
- Size: 5.0"L x 3.0"W



| Part No. | Product No. | 1 | 10 | 50 | 100 |
|----------|-------------|--------|--------|--------|--------|
| 159273CX | HT109 | \$5.49 | \$4.94 | \$4.45 | \$4.00 |

5" Wire Cutter/Strippers

- Insulated handles
- Spring return
- Tempered steel cutting edge
- Size: 5.0"L x 3.0"W
- One-year warranty



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 50 | 100 |
|----------|---|--------|--------|--------|--------|
| 78991CX | 10-30 AWG (screw adjustable) | | | | |
| 215888CX | 10-24 AWG (dial to adjust for wire gauge) | | | | |
| 78991CX | HT108 | \$3.95 | \$3.49 | \$2.95 | \$2.59 |
| 215888CX | JE-2022C | 3.95 | 3.49 | 2.95 | 2.59 |

Heavy Duty Tubing Cutter

- Clever design eliminates spiraling, resulting in straight clean cuts with no burrs
- Cuts copper, brass, aluminum tubing and thin-wall conduit up to 1-1/8" diameter
- Extra cutter wheel stored in body
- Lightweight aluminum body and knob
- Telescopic wheel-feeding mechanism keeps turning radius constant
- Length: 4.8"



| Part No. | Description | 1 | 5 |
|----------|---------------|---------|---------|
| 227475CX | Tubing cutter | \$19.95 | \$17.95 |



6" Wire Cutter/Strippers

- Contoured cushion-grip handles
- Wire size markings, in AWG and mm
- Size: 6.0"L x 2.0"W

161226CX: Premium T-5

- 10-18 AWG solid
- Color: yellow

161234CX: Premium T-6

- 16-26 AWG stranded
- Color: red

161218CX: Standard T-6

- 16-26 AWG stranded
- Color: red



| Part No. | Prod. No. | Description | 1 | 10 |
|----------|-----------|---------------|---------|---------|
| 161226CX | ID45-215 | T-5 10-18 AWG | \$15.95 | \$14.49 |
| 161234CX | ID45-216 | T-6 16-26 AWG | 16.95 | 15.26 |
| 161218CX | ID45-121 | T-6 16-26 AWG | 12.95 | 11.66 |



6.5" Snip Tool

- Shearing action of 1.5" cut pointed blades prevent peaks on fine wires & filaments
- Useful for removing insulation and cutting light sheet metal
- Coil spring opens blades
- Safety latch
- Plastic coated cushion grips provide maximum leverage



| Part No. | Prod. No. | Description | 1 | 10 |
|----------|-----------|-------------|---------|---------|
| 218026CX | 86CG | Snip tool | \$27.95 | \$25.16 |



6.6" Wire Stripper

- Wire stripper, cutter, steel wire cutter, and wire loop
- Scale: AWG and mm
- Strips and cuts wires from 20-30 AWG
- Size: 6.6"L x 2.0"W



| Part No. | Product No. | 1 | 10 | 50 |
|----------|-------------|--------|--------|--------|
| 159290CX | HT5023 | \$9.95 | \$8.96 | \$8.06 |



7-in-1 Wire-Handling Tool

- Wire stripper, wire cutter, steel wire cutter, pliers and wire loop
- Solderless crimping tool
- Scale: mm and inch
- Size: 6.6"L x 3.0"W



| Part No. | Prod. No. | Description | 1 | 10 | 50 |
|----------|-----------|-------------|--------|--------|--------|
| 18796CX | HT104 | 10-18AWG | \$4.95 | \$4.49 | \$3.95 |
| 127861CX | HT1042 | 16-26AWG | 5.49 | 4.94 | 4.45 |
| 127870CX | HT1043 | 22-30AWG | 5.49 | 4.94 | 4.45 |



Rotary Coax Cable Strippers

2 and 3 Blade

159118CX (3 Blade):

- 2 settings RG58/59/62
- For cable sizes 4-10mm
- Size: 4.2"L x 1.3"W
- Color: black

159185CX (2 Blade):

- 4 settings RG58/59/62/174
- For cable sizes 4-12mm
- Size: 3.9"L x 0.7"W
- Color: gray

Includes: Hex key wrench for adjusting blade



| Part No. | Product No. | 1 | 10 | 25 |
|----------|------------------|---------|---------|---------|
| 159118CX | HT312B (3 blade) | \$13.95 | \$12.56 | \$11.30 |
| 159185CX | HT332D (2 blade) | 13.95 | 12.56 | 11.30 |

Automatic Wire Strippers

175097CX: Spring load grip

- Size: 7.0"L x 2.5"W
- Weight: 0.8 lbs.

Includes: Wire stopper for desired strip length

202841CX:

- Size: 6.5"L x 3.0"W
- Weight: 0.3 lbs.

237219CX:

- Size: 5.2"L x 2.7"W
- Weight: 0.2 lbs.



| Part No. | Description | 1 | 10 | 25 |
|----------|------------------|---------|---------|---------|
| 175097CX | Strips 8-22 AWG | \$16.95 | \$15.26 | \$13.73 |
| 202841CX | Strips 3-24 AWG | 12.45 | 11.19 | 9.95 |
| 237219CX | Strips 14-24 AWG | 9.95 | 8.95 | 8.09 |

Hex Crimp Tools

- Use with RG-58 and RG-59 connectors with up to a 3/8" ferrule

261745CX: 1.7mm

standard crimp for crimping center conductor on BNC & TNC connectors; up to 3/8" ferrule

261737CX: Ferrules up to 1/2"



| Part No. | Description | 1 | 5 |
|----------|-----------------------|---------|---------|
| 261745CX | Hex crimp tool (3/8") | \$19.75 | \$18.55 |
| 261737CX | Hex crimp tool (1/2") | 19.49 | 18.29 |

Compression Multi-Tool

Designed to compress ferrules of "F" /BNC/RCA connectors. Black oxide steel frame w/ interchangeable die sockets, ratchet mechanism w/ manual release releases after a complete cycle securing a fully compressed ferrule. Integrated coax cutter for cutting cables to appropriate lengths.



| Part No. | Description | 1 | 5 |
|----------|------------------------|---------|---------|
| 261761CX | Compression multi-tool | \$35.65 | \$33.85 |

"F" Connector Compression Tool

Compresses RG-6 and RG-59 Snap-N-Seal type connectors.

- Length: 5"



| Part No. | Description | 1 | 5 |
|----------|------------------|---------|---------|
| 261753CX | Compression tool | \$29.95 | \$28.45 |



Solderless Terminal Crimping Tool

- Crimps solderless terminals: 18-22 AWG red, 14-16 AWG blue and 10-12 AWG yellow
- Size: 9.0"L x 2.0"W

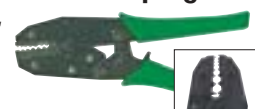


| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 72995CX | HT303 | \$18.95 | \$17.06 | \$15.35 |



Ratcheted BNC Crimping Tool

- Crimps RG58, RG59, RG62, RG174 and fiber optic
- Hex sizes: 0.043", 0.068", 0.100", 0.137", 0.213", 0.255"
- Size: 8.5"L x 2.5"W



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 114534CX | HT-336G | \$23.95 | \$21.59 | \$19.45 |

Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high-quality connections
- Push-down locking mechanism
- Size: 8.0"L x 2.0"W • Weight: 0.8 lbs.



Includes: Cut and strip blade

| Part No. | Mfr. Cross Ref. No. | 1 | 10 |
|----------|---------------------|---------|---------|
| 174684CX | TTK071 | \$29.95 | \$26.99 |

Telemaster Modular Connector Crimp/Cut/Strip Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high quality connections
- Size: 6.0"L x 2.0"W
- Weight 0.8 lbs.



Includes: Cut and strip blade

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 161091CX | ID30-496 | \$39.95 | \$35.99 |

Ratchet Crimp Tool

For RJ11 (6P) and RJ45 (8P) Modular Plugs

- Repeatable crimp action for consistent high-quality connections
- Size: 8.5"L x 2.2"W
- Weight: 1.2 lbs.



Includes: Cut and strip blade

| Part No. | Mfr. Cross Ref. No. | 1 | 10 |
|----------|---------------------|---------|---------|
| 174676CX | TTK070 | \$39.95 | \$35.99 |

Professional Modular Connector Crimping Tool

- Spring return action
- 6mm and 12mm stripping guide
- Crimp modular plugs without changing dies
- Crimps 10P10C, RJ45: 8P8C, RJ11 and RJ12: 6P6C, and 4P4C
- Insulated handles • Size: 8.2"L • Weight: 1.2 lbs.



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 181147CX | HT200 | \$54.95 | \$49.49 | \$44.55 |

Modular Connector Crimping Tool Set

- 8" metal modular crimping tool
- Cuts, strips and crimps
- Crimps RJ11 and RJ45 plugs
- Carrying case: blue hard plastic, 8.0"L x 10.5"W x 2.0"H
- Weight: 2.1 lbs.



Includes: 90 modular plugs, 40 pcs. 4P4C, 30 pcs. 6P6C, 20 pcs. 8P8C

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 73496CX | HT2000B | \$74.95 | \$67.49 | \$60.75 |

Metal Modular Connector Crimping Tool

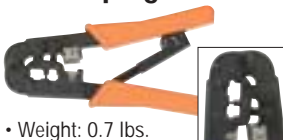
- Cable stripper and wire cutter
- Size: 8.0"L
- Weight: 1.8 lbs.
- Crimps 6P and 8P plugs (6P2C, 6P4C, 6P6C, 8P2C, 8P4C, 8P6C, 8P8C)



| Part No. | Description | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 114526CX | RJ11/RJ45 | \$24.95 | \$22.49 | \$20.25 |

Ratcheted Modular Connector Crimping Tool

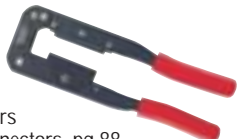
- Insulated grip
- Ratcheted type
- Metal • 7.5"L
- Crimps RJ45 (8P8C) and RJ11/12 (6P6C) • Weight: 0.7 lbs.



| Part No. | Description | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 159311CX | RJ45/11/12 | \$21.95 | \$19.95 | \$17.95 |

IDC Connector Crimping Tool

- Crimping distance: 27.5mm to 6mm (with attachment)
- Cushioned red handles
- Crimp insulation displacement connectors
- Use for IDC socket connectors, pg 88
- Size: 9.2"L x 3.0"W • Weight: 1.1 lbs.



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 73251CX | HT214 | \$15.95 | \$14.39 | \$12.95 |

Non-Insulated Terminal D-Sub Crimping Tool

14-26 AWG

- Heavy-duty metal tool with cutter and insulated handles
- For computer pins and sockets, D-sub 26-28 AWG wire
- For butt-insulated connectors, 22-26 AWG wire
- For telephone spade lugs, 22-26 AWG wire
- For non-insulated connectors, 20-22 AWG wire
- For non-insulated connectors, 14-18 AWG wire
- Coiled spring return • Size: 7.3"L x 1.5"W

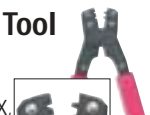


| Part No. | Product No. | 1 | 10 | 25 | 100 |
|----------|-------------|--------|--------|--------|--------|
| 99442CX | HT202A | \$9.49 | \$8.55 | \$7.69 | \$6.95 |

D-Sub Crimping Tool

20-28 AWG

- Crimps D-sub pins and sockets
- For use w/ P/Ns 43377CX, 43369CX, pg 75 & 100765CX, pg 82
- Size: 7.0"L x 4.0"W



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|--------|--------|
| 159265CX | HT213 | \$10.95 | \$9.89 | \$8.89 |

Multi-tool Storage Rack

Organize and store 106 of the most common tools in 24" of wall space. Made of durable plastic material, it easily mounts on a wall with the included screws.



| Part No. | Description | 1 | 4 | 8 |
|----------|--------------|--------|--------|--------|
| 239353CX | Storage rack | \$5.99 | \$5.49 | \$4.99 |

Pocket Multi-Tools

These heavy-duty, all-in-one multi-tools are really handy for do-it-yourself users, students, handy-men, and sportsmen. Folded, they fit in the palm of your hand or slip into a sheath on your belt. Just the tools you need for everyday use!



New Lower Prices

SALE

| | 227264CX | 227221CX | 227192CX | 227213CX |
|----------------------------|----------------------|---|---|---|
| Accessory bits | | | | 7 |
| Awl | | 1 | 1 | |
| Can/bottle opener | 1 (bottle) | 2 | 2 | 2 |
| File (wood/metal) | 1 (metal) | 1 (metal) | 1 (metal) | |
| General screwdriver handle | | | | 1 |
| Flashlight | 1 | | | |
| Hammer, nail remover | | | | 2 |
| Hex nuts | | | | 3 |
| Knife blade | 1 | 1 | 1 (small) | 1 |
| Nail pick | 1 | 1 | | |
| Pliers, handyman/long-nose | 2 | 1 | 2 | |
| Ruler | | | 1 | |
| Saw | | | | 2 |
| Scissors | | 1 | | |
| Screwdriver, flat head | | 1 (small) | 3 (S, M, L) | |
| Screwdriver, Phillips | 1 | 1 | 1 | 1 |
| Wire cutter | 1 | 1 | 1 | |
| Description | 9-in-1 | 11-in-1 | 13-in-1 | 19-in-1 |
| Pricing | 1: \$6.29 5: 5.65 | 1: \$11.95 \$8.29 5: 7.47 | 1: \$19.95 \$13.29 5: 11.98 | 1: \$19.95 \$13.99 5: 12.60 |

See page 76 for Molex Hand Crimp Tool.

30-Day Money-Back Guarantee
If you're not satisfied we'll take it back! Details on page 241.

3-Piece Open-End Ratcheting Wrench Sets

The most useful development in open-end wrenches in 40 years. Most open-ended wrenches need a pivot angle of 60° to reinsert the wrench to make the next movement. The Alden Wrench needs only 30°, and with the built-in ratchet, you need not even remove the wrench from the head of the bolt or nut. Coupled with its small head sizes and ratcheting action, you can loosen or tighten a bolt faster and in tighter spaces than any standard combo wrench. It is made of stainless steel alloy widely used in aerospace and is individually hand polished.

• Weight: 0.6 lbs.

223896CX: SAE 3/8-7/8, 1/2-9/16, 5/8-11/16

223909CX: Metric 10-12, 13-14, 15-17

| Part No. | Description | Price |
|----------|-------------|---------------------------------|
| 223896CX | SAE | \$34.95 |
| 223909CX | Metric | \$34.95 31.95 |

4-Piece Adjustable Wrench Set

Heavy-duty carbon steel wrenches with black industrial finish. Constructed w/ rugged I-beam handle and four-sided jaw design for better fit and strength.

• Length x Jaw opening:
12" x 1 1/16"; 10" x 1 1/16";
8" x 1"; 6" x 1 1/16"



| Part No. | Description | 1 | 5 |
|----------|-----------------------|--------|--------|
| 261711CX | Adjustable wrench set | \$9.65 | \$9.15 |

10-Piece Metric Combo Wrench Set

• Chrome vanadium steel for strength and durability
• Drop forged for accuracy
• Ideal for confined working areas

• Sizes: 4mm, 4.5mm, 5mm, 5.5mm, 6mm, 7mm, 8mm, 9mm, 10mm, and 11mm



| Part No. | Description | 1 | 5 |
|----------|------------------|--------|--------|
| 261489CX | Combo wrench set | \$7.99 | \$7.59 |

Adjustable Wrench

Made of chrome-plated carbon steel with knurled adjustment screw and angled head.

• Size: 6"L x 13/16"



| Part No. | Description | 1 | 5 |
|----------|-------------------|--------|--------|
| 261649CX | Adjustable wrench | \$4.15 | \$3.69 |

Combination Wrenches

Made from hardened, tempered, drop forged chrome vanadium steel. These wrenches have a straight open end and a 120° offset bi-hexagonal ring.



| Part No. | Description | 1 | 5 |
|----------|--------------|--------|--------|
| 261702CX | 9/16" wrench | \$6.39 | \$6.09 |
| 261690CX | 1/2" wrench | 6.19 | 5.89 |
| 261681CX | 7/16" wrench | 5.69 | 5.39 |

8-Piece Fold-Up Torx Key Set

- 3.7" long handle
- Torx bits: T9, T10, T15, T20, T25, T27, T30, T40
- Size: 3.7"L x 1.2"W



| Part No. | Description | 1 | 10 | 100 |
|----------|--------------|---------|---------|--------|
| 176006CX | Torx key set | \$11.49 | \$10.35 | \$9.35 |

25-Piece Hex Key Set

- 12-piece SAE long arm with sizes from 1/16" to 3/8"
- 13-piece Metric short arm with sizes from 1.5mm to 1cm



| Part No. | Description | 1 | 5 |
|----------|-------------|--------|--------|
| 261825CX | Hex key set | \$6.95 | \$6.59 |

Rivet Tool

Sets 3/32", 1/8", 5/32" & 3/16" rivets without adjustments. Simply change the appropriate nozzle, slip the rivet into the pre-drilled hole, and you have a perfect fasten. Spring-loaded handle for automatic ejection of the mandrel.



| Part No. | Description | 1 | 5 |
|----------|----------------------------------|---------------------------------|---------------|
| 226114CX | Rivet tool | \$6.95 \$5.95 | \$5.36 |
| 226288CX | 1/8" x 1/4" long rivet (100 pk) | 2.19 | 1.99 |
| 226296CX | 3/16" x 1/4" long rivet (100 pk) | 3.49 | 3.29 |

5" Steel Hemostats

- Grade 410 A.I.S.I. stainless steel
- Three locking positions



| Part No. | Mfr. Cross Ref. No. | Description | 1 | 10 | 50 |
|----------|---------------------|-------------|--------|--------|--------|
| 115107CX | HEMO1 | Straight | \$3.49 | \$3.14 | \$2.83 |
| 115115CX | HEMO2 | Curved | 3.95 | 3.56 | 3.20 |

Nibbling Tool

- Perfect for cutting, trimming, or notching sheet metal up to 18 AWG
- Time-saver when working on prototyping, chassis, and circuit boards
- Minimum .375" hole required



| Part No. | Prod. No. | Description | 1 | 10 | 25 |
|----------|-----------|---------------|--------|--------|--------|
| 18809CX | HT204 | Nibbling tool | \$7.95 | \$7.16 | \$6.44 |
| 29330CX | HT204B | Replcmnt bit | 4.49 | 4.04 | 3.64 |

Heavy Duty Staple Guns

Built with all-steel construction with hardened steel working parts. These staplers and cable tackers are designed for the most demanding of environments. The standard stapler is perfect for contractors, home do-it-yourselfers, and specialty trade applications. We also offer the cable tackers that are ideal for a wide variety of applications such as telephone wire, cable TV, hi-fi systems, alarm systems, intercommunications and general electrical contract work. Both are made of durable nickel-plated steel for heavy-duty use. Rubber grip assures comfortable operation.



242878CX



242886CX

- Handle locking
- Easy rear loading
- Adjustable high impact tension knob
- Easy squeezing action
- Hand stop for safe stapling control
- Visual reload window & rear loading

227969CX: T-50 Staple Gun

- Handles 5/16"; 3/8", 1/2", & 9/16" staples
- Use T-50 type staples, below
- Weight: 2.1 lbs.

242878CX: Cable Tacker Gun

- 4.8mm maximum cable diameter, 1/4" width
- Use P/Ns 244988CX & 245008CX tackers, below
- Weight: 1.9 lbs.
- 242886CX: 4-in-1 Staple/Tacker/Nail Gun
- Handles T-50 staples; T-25 cable tackers; 14mm long pin nails; 12-14mm long brad nails
- Weight: xx lbs.

| Part No. | Description | 1 | 5 |
|----------|-------------------|---------|---------|
| 227969CX | T-50 staple gun | \$19.95 | \$17.95 |
| 242878CX | Cable tacker gun | 24.95 | 22.45 |
| 242886CX | 4-in-1 staple gun | 28.95 | 25.95 |

Staples

| Part No. | Description | 1 | 5 |
|----------|--------------------------------|--------|--------|
| 230295CX | T-50, 5/16", 1250 ea. | \$2.45 | \$2.35 |
| 230308CX | T-50, 3/8", 1250 ea. | 2.75 | 2.65 |
| 230316CX | T-50, 1/2", 1250 ea. | 2.89 | 2.79 |
| 230324CX | T-50, 9/16", 1250 ea. | 3.15 | 3.05 |
| 244988CX | 3/8"L tackers, 1000 ea. | 1.69 | 1.59 |
| 245008CX | 9/16"L tackers, 1000 ea. | 1.89 | 1.79 |
| 245016CX | T-25, 1/2"L tackers, 1000 ea. | 1.89 | 1.79 |
| 245032CX | T-25, 9/16"L tackers, 1000 ea. | 2.25 | 2.15 |

1/4 – 1/2 Watt Resistor Lead Forming Tool

- Watt size indicates appropriate package size
- Bends lead length in .05" increments
- Excellent for capacitors also
- Lead spacing: 1/4W: 0.4"-1.5"; 1/2W: 0.5"-1.5"
- Size: 5.4"L x 1.5"W



| Part No. | Description | 1 | 10 | 50 |
|----------|-------------|--------|--------|--------|
| 106884CX | 1/4-1/2W | \$2.99 | \$2.79 | \$2.65 |

30-Day Money-Back Guarantee

If you're not satisfied we'll take it back!
Details on page 241.

For Tool Kits and Tool Cases see pages 182 - 183.

2-Piece Tweezer Set

- PVC insulated handles
- Serrated tips for parts handling
- Bent tip and straight rounded tip (wide tip)
- Length: 5.8"



| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------|--------|--------|--------|
| 253180CX | Tweezer set | \$2.99 | \$2.69 | \$2.45 |

12-Piece File Tool Kit

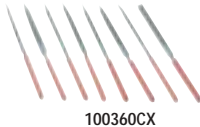
- Fine and coarse file assortment for metal and wood
- 3-piece metal flat; 2-piece metal triangle; 1 each wood round; metal round; wood half-round; metal half-round; metal/wood half-round; and 2 detachable handles



| Part No. | Description | 1 | 5 |
|----------|-------------------------|---------|---------|
| 23314CX | 12-piece file kit | \$14.95 | \$13.45 |

Steel File Sets

- Strong tool steel
- 100360CX: 8-piece (5.65"L)
 - 1 ea. 0.15"Dia., 0.13"Dia., 0.12"Dia., 0.11"Dia. and four 0.22"Dia.
- 202833CX: 6-piece (5.5"L)
 - 1 ea. 0.12"Dia. (round), 0.11"W (triangle), 0.10"W (square), 0.20"W (half-round) and two 0.2"W (flat)



| Part | Mfr | Cross | | | |
|----------|----------|------------------------|------------------------|--------|--|
| Number | Ref. No. | Description | 1 | 10 | |
| 100360CX | FS108F | 8-piece file set | \$9.49 | \$8.54 | |
| 202833CX | 08110 | 6-piece file set | \$2.09 1.39 | 1.29 | |

Impact Punch-Down Tool

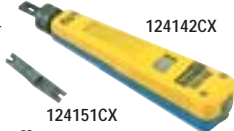
- Reversible clip-in blade
- Adjustable (HI-LO) spring-loaded impact mechanism
- Storage bin on handle for spare blade
- 175071CX: Punch-down tool with blade
 - For 66-type terminals
 - Size: 5.2"L x 1.5"W x 1.0"H
- 175089CX: Punch-down blade
 - Blade for 110-type terminals



| Part No. | Description | 1 | 10 |
|----------|----------------------------|---------|---------|
| 175071CX | Tool with 66 blade | \$34.95 | \$31.46 |
| 175089CX | Punch-down blade 110 | 14.95 | 13.49 |

Impact Punch-Down Tool

- Conforms to AT&T performance specification. Reversible clip-in blade, adjustable spring-loaded impact mechanism and spare storage blade in the handle.
- One-year warranty



Paladin Tools®

- 124142CX: For 66-type bifurcated terminals
 - Size: 7.0"L x 1.4"W x 1.1"H
- 124151CX: Blade for 110-type terminals

| Part No. | Description | 1 | 10 |
|----------|-------------------------------|---------|---------|
| 124142CX | # 3527 Tool with 66 blade ... | \$49.35 | \$45.00 |
| 124151CX | 110 blade | 19.95 | 17.95 |

See other Paladin Tools on page 191.

4-Piece Steel Tweezer Set



- 4 styles of stainless steel tweezers, one self-locking
- Ideal for picking up small components in hard-to-reach places

| Part No. | Description | 1 | 10 | 50 |
|----------|--------------------------|--------|--------|--------|
| 10735CX | 4-piece tweezer set | \$7.95 | \$6.95 | \$5.95 |

Automatic Center-Punch Tool

Adjustable

- Precision instrument
- Alloy steel point
- Knurled steel body • Size: 5.0"L x 0.5"Dia.



| Part No. | Description | 1 | 10 | 50 |
|----------|-------------------------|--------|--------|--------|
| 160282CX | Center punch tool | \$5.95 | \$5.39 | \$4.85 |

T-Handle Reamer Tool

Excellent for aluminum chassis work

- For enlarging starter holes on panel mount components from 1/8" to 1/2" diameter
- T-handle for easy rotation of tool
- Handle: 3.3" long, tool: 5.3" long



| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------------|--------|--------|--------|
| 151749CX | T-handle reamer tool .. | \$7.95 | \$7.49 | \$6.95 |

Strip-Wrap-Unwrap Tool

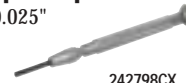
- Tool tip made of tempered steel
- Spring steel cutter
- Use with 30 AWG wire on .025" square posts
- No solder necessary, see pg 59 for wire
- Wrap 1 to 2 turns of insulated portion of wire for secure connections • 4.5" long



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 25 |
|----------|-----------------------|---------|---------|---------|
| 34585CX | HSM30 (Modified) ... | \$49.99 | \$44.99 | \$39.99 |
| 236785CX | HSR30 (Regular) | 29.95 | 26.95 | 23.95 |

30 AWG Wire Wrap/Strip Tools

- Recommended for use on 0.025" (0.63mm) square posts on 0.100" (2.54mm) center grids. The first 1-1/2 loop on the modified tool has wire insulation while all loops on a regular tool have bare wires.
- Knurled handle for easy grip
 - 5" Long



| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------------|---------|---------|---------|
| 242801CX | Tool (Regular) | \$17.95 | \$16.15 | \$14.55 |
| 242798CX | Tool (Modified) | 19.95 | 17.95 | 16.15 |
| 242827CX | Replace tip for 242801CX | 8.49 | 7.65 | 6.89 |
| 242819CX | Replace tip for 242798CX | 9.49 | 8.55 | 7.69 |
| 242835CX | Replace stripper assembly | 5.49 | 4.95 | 4.45 |

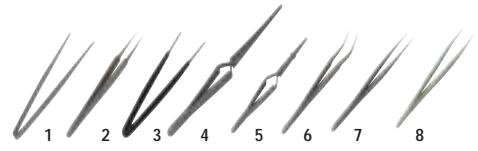
IC Pin Straightener

- Straighten bent pins safely and easily with Jameco's IC pin straightener.
- Straightens 8/14/16/18/20/24/28/40/42-pin ICs
 - Materials: black plastic • Size: 3.3"L x 1.5"W x 0.4"H



| Part No. | Description | 1 | 10 | 100 |
|----------|-----------------------|--------|--------|--------|
| 99362CX | IC straightener | \$6.95 | \$6.26 | \$5.63 |

Tweezers



- 253163CX: Straight, round tapered, wide-point tip
- 252929CX: Straight round tapered, fine-point tip, stainless steel
- 253121CX: Wide-tip, insulated
- 252945CX: Self-closing reverse-action tweezers; wide point tip; stainless steel
- 252937CX: Self-closing reverse-action tweezers; medium point tip; stainless steel
- 253091CX: Curved fine-point tip
- 252911CX: Straight fine-point tip
- 253112CX: Fine-point tip, insulated, anti-static

| Part No. | Length | Photo | 1 | 10 | 25 |
|----------|--------|---------|--------|--------|--------|
| 253163CX | 4.5" | 1 | \$0.99 | \$0.89 | \$0.79 |
| 252929CX | 4.75" | 2 | 2.25 | 1.99 | 1.79 |
| 253121CX | 4.6" | 3 | 1.49 | 1.35 | 1.25 |
| 252945CX | 6.6" | 4 | 2.59 | 2.35 | 2.09 |
| 252937CX | 4.3" | 5 | 2.25 | 1.99 | 1.79 |
| 253091CX | 4.6" | 6 | 2.25 | 1.99 | 1.79 |
| 252911CX | 4.75" | 7 | 2.25 | 1.99 | 1.79 |
| 253112CX | 4.75" | 8 | 2.25 | 1.99 | 1.79 |

Trimmer Potentiometer Adjustment Pocket Tool

- Glass-filled body
- Stainless steel blade
- Size: 5.2"L



| Part No. | Description | 1 | 10 | 100 |
|----------|--------------------|--------|--------|--------|
| 153314CX | Trimmer tool | \$1.35 | \$1.22 | \$1.09 |

Crimp Pin Extraction Tools

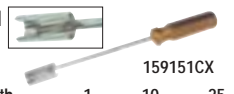
- Easily extract 0.093" locking pins from connectors
- Heavy duty metal
- Precision design • Length: 5"
- See crimp pins on pg 79 (42729CX and 42649CX)



| Part No. | Prod. No. | Description | 1 | 10 |
|----------|-----------|---------------------------|---------|--------|
| 131887CX | HT319C | Male tool for 42729CX | \$10.95 | \$9.86 |
| 131879CX | HT319B | Fem. tool for 42649CX ... | 10.95 | 9.86 |

BNC Connector Removal Tools

- For deep chassis removal
- Allows access to hard-to-reach places



| Part No. | Product No. | Length | 1 | 10 | 25 |
|----------|-------------|-----------|--------|--------|--------|
| 159151CX | HT2206 | 6" | \$8.49 | \$7.64 | \$6.88 |
| 152047CX | HT2212 | 12" | 15.95 | 14.36 | 12.92 |

D-Sub Pin Insertion/Extraction Tool

- Insertion/extraction tool: red/white plastic body; exchangeable tips



| Part No. | Description | 1 | 10 | 100 |
|----------|---------------------------|--------|--------|--------|
| 19094CX | Insert/extract tool | \$2.79 | \$2.49 | \$2.15 |

Opening an account is easy!!

Corporate Customers

Call 1-800-831-4242 for details today.

Steel Fish Tapes

Fishing wires inside finished walls or through conduit is not fun. But with our steel fish tapes, you won't have to spend all day finishing the job. Designed specifically to make the retrieval of wires quick and easy.

- Impact resistant yellow ABS case won't rust or dent
- Finger grips around reel to ensure easy control
- Trigger provides constant-pressure tension while retracting



| Part No. | Length | 1 | 10 | 25 |
|----------|--------|---------|---------|---------|
| 217470CX | 50' | \$21.95 | \$19.76 | \$17.78 |
| 217488CX | 100' | \$39.95 | 27.65 | 24.87 |
| 217496CX | 200' | 37.79 | 33.99 | 30.59 |

Magnetic Tip Measuring Tape

Measuring height or width with a regular tape measure is not easy, especially if you are working single-handed with metal materials. Typical end hooks will always slide out or will not hook properly. With this measuring tape, you can easily clamp on to metal surfaces with its magnetic hook and make precise height or width measurements.



- Magnetic end hook for convenient measuring and TRU ZERO function
- Blade with nylon coating for easy scale reading
- Anti slip and shockproof rubber case
- Heavy duty spring and blade system
- Tape measure length: 25'

| Part No. | Description | 1 | 10 |
|----------|-------------------------------|--------|--------|
| 215415CX | Magnetic tip tape measure ... | \$9.95 | \$8.95 |

33' Measuring Tape

This retractable measuring tape's case has a rubber finish for easy grip and yellow contrast for easy visibility. Tape has easy-to-read markings with fractional scale every 1/16". Triple riveted end hook. Belt clip and strap for convenience.

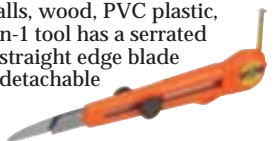


| Part No. | Description | 1 | 5 |
|----------|----------------|--------|--------|
| 261833CX | Measuring tape | \$9.35 | \$8.49 |

3-In-1 Tool Measuring Tape, Knife, and Saw

Cut through drywalls, wood, PVC plastic, and paper. This 3-in-1 tool has a serrated saw on one side, a straight edge blade on the other and a detachable 6' measuring tape.

- Length: 8.4"



| Part No. | Description | 1 | 10 |
|----------|-------------|--------|--------|
| 218641CX | 3-in-1 tool | \$4.49 | \$3.99 |

6" Drywall Saw

Ideal for cutting holes in drywall.

- Hardened tempered steel blade
- Sharp tip for plunge cuts
- Hard plastic handle



| Part No. | Description | Price |
|----------|----------------|--------|
| 224004CX | 6" drywall saw | \$2.49 |

Digital Display Calipers

Metric or Inches

- Hardened stainless steel
- Display: inches to 1/1000THS mm to 1/100THS
- Resolution: 0.01mm (0.0005")
- Instructions for making internal, external, depth and step measurements
- Calipers measure to 6 inches/150mm
- Weight: 0.8 lbs. • One-year warranty



Includes: Fitted case and 1.5V silver oxide battery (replacement battery, P/N 140783CX, pg 157)

| Part No. | Description | 1 | 10 | 25 |
|----------|------------------------|---------|---------|---------|
| 127482CX | Digital disp. calipers | \$64.95 | \$58.46 | \$52.61 |

Metal Dial Calipers

Metric or Inches

- For accurate measurements every time
- Measures outside, inside and depth
- Easy-to-read dial gauge
- Length: 6" (150mm)
- Materials: metal
- Color: silver • Weight: 0.7 lbs.



Includes: Fitted plastic storage case

| Part No. | Description (min. reading) | 1 | 10 | 25 |
|----------|----------------------------|---------|---------|---------|
| 116134CX | Metric (.02 mm) | \$29.95 | \$26.96 | \$24.26 |
| 116126CX | Inches (.001 inch) | 29.95 | 26.96 | 24.26 |

Magnetizer/Demagnetizer

Magnetize tips of screwdrivers for easy pick-up of small metal objects; demagnetize tips to prevent electrostatic discharge that will damage electronic components.

- Size: 2.0"L x 2.0"W x 1.2"D



| Part No. | Description | Price |
|----------|-------------------------|--------|
| 239530CX | Magnetizer/Demagnetizer | \$6.99 |

Glue Gun and Sticks

- Adheres to PCBs, cardboard, wires, metal and cloth
- Silicon nozzle
- Electronic heating
- Trigger action
- Utilizes 100mm long gluesticks (2 sticks included)
- Size: 7.3"L x 6.3"W
- Weight: 0.8 lbs.



| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------|--------|--------|--------|
| 72696CX | Glue gun | \$9.95 | \$8.96 | \$8.06 |
| 78633CX | Glue sticks (6/pk) | 3.15 | 2.84 | 2.55 |
| 176292CX | Glue sticks (10/pk) | 4.95 | 4.29 | 3.79 |

Deluxe Precision Knife Set

- Three different knife handles – fine work, medium and heavy duty power grip
- Size: 6.3"L x 2.8"W x 1.4"H

Includes: 13 types of blades



| Part No. | Description | 1 | 10 | 25 |
|----------|--------------------|---------|--------|--------|
| 72768CX | 13 blade knife set | \$10.95 | \$9.86 | \$8.87 |

1000-Watt Heat Gun

- Dual heat setting: 600°F/1100°F
- Works with spot dry paints, plaster, spackle, and cure adhesives
- Use with heat-shrink material
- Thaw pipes, frozen locks, and loosen rusted bolts
- Input voltage: 110-120 VAC



| Part No. | Description | 1 | 6 | 12 |
|----------|-------------|---------|---------|---------|
| 254924CX | Heat gun | \$42.55 | \$41.10 | \$36.85 |

Heat Gun/Stripper

Dual-Setting

- Use with heat shrink material
- Works with spot-dry paint, plaster, spackle cure adhesives
- Will remove adhesive-applied tiles and linoleum without chipping
- Dual heat setting: 600°F/1100°F
- Thaw pipes, frozen locks and loosen rusted bolts
- UL listed • Weight: 1.8 lbs. • Size: 9.3"L x 7.0"W



| Part No. | Description | 1 | 10 | 25 |
|----------|------------------------|---------|---------|---------|
| 76865CX | Heat gun | \$39.95 | \$35.95 | \$31.95 |
| 217816CX | Heat shrink attachment | 1.95 | 1.85 | 1.75 |
| 217832CX | Air spreader | 1.95 | 1.85 | 1.75 |

Weller® 250-Watt, 3-Setting Industrial Heat Gun

- 750°F to 800°F hot air at nozzle; 3-position switch; hot-off-cool
- Designed for assembly and repair applications such as shrink tubing and vinyl, epoxy curing/drying/cooling
- 120VAC @ 60Hz • ESD safe
- Long-life heater and fan components
- 3-wire grounded plug; 6' cord



| Part No. | Product No. | Wt. (lbs.) | 1 | 10 |
|----------|-------------|------------|----------|----------|
| 191943CX | 6966C | 1.2 | \$119.95 | \$107.95 |

WAHL® 1,200°F Portable Heat Gun

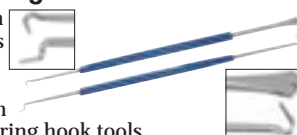
- Portable and flameless heat
- Temperatures up to 1,200°F (650°C)
- Typical applications: shrink tubing, activate adhesives and potting compounds, form plastics and laminates and preheat flux
- Each cartridge (disposable butane lighter) provides approximately 20 minutes of heat
- Includes disposable gas lighter
- Electronic ignition
- Size: 4.8"L x 0.9"W • One-year warranty



| Part No. | Description | 1 | 10 |
|----------|-----------------------------|---------|---------|
| 150691CX | Portable flameless heat gun | \$26.49 | \$25.25 |

Spring-Hook Tools

Grab or place in position springs and wires in those hard-to-reach areas with these 8" long spring hook tools.



| Part No. | Description | 1 | 5 |
|----------|--------------|--------|--------|
| 226042CX | Spring hooks | \$5.95 | \$5.69 |

SurePunch™ Series Punchdown Tools

Terminates and cuts telephone wire and data cable into 66 and 110 termination panels for insulation displacement (IDC) type bifurcated terminals.

- Cushion grip, molded to the shape of your hand, for comfort and a sure, non-slip hold
- Increased HI/LO impact force to meet demands of new cable types and gauges
- For 22-28 AWG solid or stranded wire
- Blades twist and lock into place
- New latch cover blade storage area in end of handle
- Length (with blade): 8.0" • One-year warranty

230391CX: 110/66 combo w/ reversible cut-only blade

230383CX: 110 reversible cut & punch/punch-only blade

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 230391CX | 3571 | \$53.95 | \$48.55 |
| 230383CX | 3572 | 53.95 | 48.55 |
| 230375CX | 3579 | 61.95 | 55.75 |

SurePunch™ PRO Punchdown Tool

With 110/66 Combo Blade & Clip-On Light

New and improved design of Paladin's SurePunch™ series. The FIRST and ONLY punchdown tool to have a detachable light, making it easy to work in dark environments. Multi-purpose spudger in handle can be used as a screwdriver or IDC contact insertion tool. Also built into the handle is a hook to feed wires through holes and a pick to separate bonded twisted pair cables, strip insulation, and cut wires.

- Adjustable HI/LO spring compression for all types of cables
- Detachable light with long-life 2200mcd LED specially designed to focus the light on the panel work area (batteries included)
- Finger grips and non-slip rubber-embedded cushion handle for comfort • Length (tool only): 7.0"
- Blades twist and lock into place; accepts other manufacturers' twist and lock type blades
- 10-year warranty on blade; one-year on tools

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 230359CX | 3588 | \$68.95 | \$61.95 |

Non-Impact 110 Punchdown Tool Cut and Punch

Terminates and cuts telephone and data wire into 110 terminating panels. For insulation displacement (IDC) type bifurcated terminals.

- Non-impact, low-cost • 22-28 AWG
- Solid or stranded, single insulation wire
- Comfortable rubber grip handle • Length: 4.0"
- Perfect for small jobs and do-it-yourself installers

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|--------|
| 230367CX | 3580 | \$10.89 | \$7.99 |

"GripP-STRIPPER" Wire Cutter/Stripper

The newest wire stripper and cutter from Paladin Tools. Combines ergonomic design with versatility. Two tools strip & cut the most common wire and cable types: electrical wire, hook-up wire, multi-conductor cable, and flat cables.

- The tool head and handles are designed at optimum 22° angle to prevent awkward wrist bends
- Spring loaded closure
- Contoured wire stripping areas precision ground for accuracy
- Non-scoring strip and smooth wire cutting
- Features screw cutter and wire loops embedded in frames • Gripping jaws on front of tool
- Size: 7.1"L x 2.3"W x .65"D • One-year warranty

| Part No. | Product No. | Description | 1 | 10 |
|----------|-------------|--------------------|---------|---------|
| 230463CX | 1117 | For 10-22 AWG ... | \$14.69 | \$13.25 |
| 230471CX | 1118 | For 20-30 AWG | 14.69 | 13.25 |

Data SureStrip™ Universal Cable Cutter/Stripper

This multi-purpose tool is an easy-to-use universal cable cutter and stripper for data, telephone, and network installations. Works with standard wires and can be used with coaxial cable by adjusting the blade for various strip depths.

- Cuts and strips multiple cable types: 4/6/8-conductor flat satin cables; 4/6/8-conductor UTP/STP data cables, 25-pair UTP/STP data and telephone cables; multi-conductor round bundled cables of up to 0.5" diameter; 8-14 AWG wire
- Small and compact, slips right into your pocket
- Works left or right handed
- Fully adjustable with simple thumb screw
- Self-regulating to prevent nicking
- Contoured finger grips for power cutting
- Length: 4.5" • One-year warranty

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 230447CX | 1116 | \$19.89 | \$17.89 |

Cable Slitter/Stripper

AM25 Slitter with 2109 blade

This is the original tool designed for slitting cable insulation. Strips and slits round cables with PVC, Teflon, and THHN insulation from 0.18"-1.0" diameter.

- Adjustable cutting depth to 0.18" • Length: 5.3"
- Swivel blade for circular, longitudinal & spiral cuts
- Cable holding clip with integrated edge for removing slit insulation • Spare blade in handle
- Slits PVC, Teflon, and THHN cables
- Lifetime tool warranty; one-year on blade

| Part No. | Prod. No. | Description | 1 | 10 |
|----------|-----------|------------------------|---------|---------|
| 230404CX | 1820 | Cable slitter/stripper | \$39.95 | \$35.95 |
| 236769CX | 2109 | Blade for 1820 | 13.40 | 12.75 |

RG59/6/RG6 Quad CATV "F" Coaxial Cable Stripper

The newest coax cable stripper from Paladin Tools. It combines high-performance and ergonomic design. Easily removes the outer jacket, shield braid, and inner dielectric in one single step.

- Self-regulating tension
- Adjust cutting depth on each blade for varying cable thickness with the included hex key
- Pre-set for common strip lengths (also pre-set for RG6 CATV "F") • For RG59/6/RG6 Quad CATV "F"
- Length: 4.3" • One-year warranty

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 230439CX | 1257 | \$16.95 | \$15.29 |

CrimpALL® Crimpers for RG58/59/62AU, RJ45 & CATV "F"

Designed with user satisfaction in mind, superior comfort, and ease of use.

- Ultra-smooth, fully-ratcheting crimp cycle with built-in safety release
- Long lasting tools that deliver over 50,000 crimp cycles
- Soft rubber embedded handles
- Rugged, double-plated jaw, designed to increase life span
- Angled head to prevent awkward wrist bending
- Reduced handle grip distance makes it easy for large and small hands
- Higher crimp force produced with less hand force
- No break-over hand force – less effort by the user to make the last click before making a complete crimp, the CrimpALL does all the work
- EZI-Change™ die screws makes changing dies quick and easy • Length: 9.9" • Weight: 1.3 lbs.

230341CX: For RG58/59/62AU with 2034 die

230332CX: For RJ45 (8P8C) with 2061 die

230455CX: For CATV "F" and RJ45 with 2687 die

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 230341CX | 8001 | \$64.49 | \$57.99 |
| 230332CX | 8030 | 64.49 | 57.99 |
| 230455CX | 8045 | 69.49 | 62.59 |

Crimpers for Twisted Pair Cable and BNC/TNC

Paladin's Original 1300 Series interchangeable-die crimping system.

- Fully-ratcheting cycle with built-in safety release
- Easy to use and maintain
- EZI-Change™ die screws make changing dies quick and easy – no screwdriver required
- Precise and tightest tolerances on die sets
- For RJ45 (8P8C) crimps 22-28 AWG flat/round, solid/stranded wires
- For 2 or 3 piece BNC/TNC connectors crimps RG58/RG59/RG62AU cables • Length: 8.9"
- 230421CX:** Twisted pair crimper with 2061 die
- Crimps 22-28 AWG flat/round, solid/stranded wires
- 230412CX:** BNC/TNC crimper with 2034 die
- Crimps RG58/59/62AU cables

| Part No. | Prod. No. | Description | 1 | 10 |
|----------|-----------|-------------------------|---------|---------|
| 230421CX | 1307 | For RJ45 (8P8C) | \$51.89 | \$46.69 |
| 230412CX | 1317 | For 2 or 3-pcs. BNC/TNC | 51.89 | 46.69 |

We'll match the print advertised price of any like product.

Jameco's Low-Price Guarantee

Powerful Cordless Screwdriver Set

Save time and your wrist with those stubborn screws. This 4.8 Volt rechargeable cordless screwdriver features a 180 RPM motor that produces 40 in.-lb. of torque for starting and finishing screws. Comes with 2 magnetic bit holders, 11-piece bit set (5 slotted, 3 Phillips, 3 torque), and power supply at no extra cost.

- Narrow nose for extended reach in tight places
- Construction grade quality
- Recharges in 7 to 9 hours
- Size: 10.5" long
- Weight: 1.4 lbs.

| Part No. | Description | 1 | 5 |
|----------|----------------------|----------------------------|---------|
| 211254CX | Cordless screwdriver | \$16.95 \$15.95 | \$14.36 |

30-Pc 1/4" Bit Set with Organizer

A 30-piece bit set supplied in a neat, compact storage drum organizer allows quick access, identification, and selection of the desired bit. All the bits are compatible with power tools, rechargeable drills, and multi-bit screwdriver handles.

Set includes:

- Nut bits: 7/16", 3/8", 11/32", 5/16", 9/32", 1/4", 3/16"
- Hex bits: 3/16", 1/8", 7/64", 5/64"
- Torx bits: T10, T15, T20, T25, T30
- Phillips bits: #0, #1, #2, #3
- Slotted bits: #3, #4, #5, #6, #7
- Pozi bits: #1, #2, #3
- 1 bit holder
- 2 screw aligners

| Part No. | Description | 1 | 5 |
|----------|--------------------------------|--------------------------|--------|
| 227230CX | 30-piece 1/4" bit w/ organizer | \$9.95 \$6.59 | \$5.95 |

32-Piece Security Bit Set

This security bit set contains most of the bits commonly used in today's electronic products to make them tamper resistant. Now you can open the cases of these products to repair them without damaging the case or screw.

Includes: Torx bits: #6, #8 and #10; Tri-wing bits: #1, #2, #3 and #4; Security hex bits: 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16" and 1/4"; Security Torx bits: T8, T10, T15, T20, T25, T27, T30, T35 and T40; Spanner bits: 4, 6, 8 and 10mm; Phillips bits: #1, #2, #3 and #4; and 60mm magnetic bit extension that fits 1/4" hex driver

| Part No. | Description | 1 | 10 |
|----------|---------------------------|---------|---------|
| 223829CX | 32-piece security bit set | \$11.95 | \$10.75 |

Mini-Drill and Stand

This Mini Drill is excellent for drilling through circuit boards and proto-boards. The drill comes with an array of drilling, grinding and sanding attachments. Drill stand is designed to function like a drill press.

| Part No. | Description | Wt. (lbs.) | 1 | 10 | 25 |
|----------|-------------|------------|---------|---------|---------|
| 26702CX | MS398 drill | 0.8 | \$29.95 | \$26.95 | \$23.95 |
| 26711CX | MS399 stand | 1.8 | 19.95 | 17.95 | 15.95 |

Adjustable Cordless Screwdriver

- Adjustable handle can be used folded or unfolded
- Thumb switch for reverse and forward action
- No load speed: 180 RPM
- Clutch operating torque from 4 to 21kg-cm
- 3.6V rechargeable battery
- Size: 10.5"L x 1.5" Dia.
- Weight: 1.6 lbs.

Includes: 6VDC @ 300mA power supply and screwdriver bits, slotted and Phillips

| Part No. | Description | 1 | 10 |
|----------|----------------------|---------|---------|
| 176680CX | Cordless screwdriver | \$36.95 | \$33.26 |

60-Piece Bit, 1/4" Socket and Driver Tool Kit

This compact kit contains the most popular bits and 1/4" sockets with a comfortable cushioned, reversible ratchet driver handle.

- Drill bits: 1/16", 3/32", 1/8", 5/32", 3/16"
- Socket bits: 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16", 1/2", 5mm, 6mm, 7mm, 8mm, 9mm, 10mm, 11mm, 12mm, 13mm
- Phillips bits: #1, #2, #3
- Phillips Z bits: 1, 2, 3
- Slotted bits: 1/8", 5/32", 3/16", 1/4", 9/32"
- Hex bits: 5/64", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4"
- Torque bits: T-10, T-15, T-20, T-25, T-30, T-40
- Square bits: 1, 2, 3
- 2.4" Magnetic bit adapter
- Reversible ratchet screwdriver
- 7.5" Flexible extension
- Socket adapter
- 6" long nose pliers
- 6" adjustable wrench
- Vinyl zipper case with organizer to find sizes fast
- Size: 8.5"L x 6.5"W x 2.2"H
- Weight: 3.1 lbs.

| Part No. | Description | 1 | 5 |
|----------|-------------------|----------------------------|---------|
| 218261CX | 60-piece tool kit | \$30.95 \$33.95 | \$30.56 |

High-Speed Steel Step Drills

Drill multiple holes in thin material with the same bit, faster and easier. Each bit does the work of many drill bit sizes. You can drill holes in most materials such as plastic, metal, and wood up to 1/8" thick.

No center punching on most sizes.

- 229657CX: • Shank size: 3/8" • 2.4" long
- 172401CX: • Shank size: 1/4" • 2.5" long

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------------|---------|---------|---------|
| 229657CX | 3/16" - 7/8" 13-step | \$14.95 | \$13.45 | \$12.10 |
| 172401CX | 3/16" - 1/2" 6-step | 9.95 | 8.95 | 7.95 |

9-Piece Assorted Drill Bit Kit

- Variety of sizes: .014" to .125"
- Each kit will vary in contents of bit sizes
- Shank diameter: .125"

Includes: Plastic case

| Part No. | Description | 1 | 10 | 50 |
|----------|-----------------------|--------|--------|--------|
| 131676CX | 9-piece drill bit kit | \$9.95 | \$8.95 | \$7.95 |

For Tool Kits and Cases see page 182 - 183.

Data VAC PRO Vacuum/Blower



The Data-Vac "PRO" has plenty of power for the toughest jobs plus a toner filter system that picks up dangerous toner spills from laser printers and copiers. "PRO" is perfect for cleaning all types of office equipment—from micros to mainframes, laser printers, copiers, fax machines, disc drives, calculators, and automatic teller machines.

Includes: 6' flexible hose, pik-all air pin pointer, crevice tool, snap in brush, soft bristle dusting brush, snorkel probe, air maximizer, adapter nozzle, flexible neck extension wand, micro dusting brush and micro crevice tool

| Part No. | Description | 1 | 5 |
|----------|-------------------------------|------------------------------|----------|
| 219213CX | Data VAC PRO vacuum | \$139.95 \$125.49 | \$119.25 |
| 219248CX | Carrying case | \$52.95 44.49 | 42.29 |
| 219230CX | Toner replacement bags (5/pk) | 34.95 | 29.95 |
| 219221CX | Disposable paper bags (5/pk) | 5.95 | 5.49 |

PC Board Drill Bits

- Reconditioned carbon steel bits
- High quality long lasting cutting edge
- Use for drilling holes in glass PC boards
- Shank diameter: .125"

| Part No. | Drill Dia. | No. | Application | 1 | 10 | 100 |
|----------|------------|-----|-------------------|--------|--------|--------|
| 16619CX | .021" | 75 | Miscellaneous | \$1.49 | \$1.34 | \$1.21 |
| 16580CX | .040" | 59 | Plated thru holes | 1.59 | 1.43 | 1.29 |

12-Piece Deluxe Hole Saw Kit

Cut smooth, accurate holes from 3/4" to 5" diameter in drywall, wood, plaster, aluminum, laminates, and plastic. With the 1/4" and 3/8" mandrels you can use it with any battery or electric drill.

- Hole saw diameters: 3/4", 7/8", 1 1/8", 1 1/4", 1 1/2", 1 3/4", 2", 2 1/2", 3", 3 1/2", 4", 5"
- 1/4" & 3/8" drive mandrels
- Allen wrench
- Size: 8.0"L x 6.0"W x 1.9"H
- Weight: 2.8 lbs.

| Part No. | Description | 1 | 10 |
|----------|--------------|---------|---------|
| 211262CX | Hole saw kit | \$18.95 | \$17.45 |

Even lower OEM pricing for larger orders.

Corporate Customers

Call 1-800-831-4242 for details today.

For detailed dimensions, please visit our website at www.Jameco.com

6-Piece Rotary Brush Set



- Bristle brushes • Copper brushes • Steel brushes

| Part No. | Description | 1 | 5 |
|----------|------------------------------|---------|---------|
| 226641CX | 6-pc. rotary brush set | \$15.95 | \$14.35 |

7-Piece Rotary Finishing Set

- Copper wire brushes
- Aluminum oxide grinding wheels
- Wool polishing wheels
- Mandrel bit



| Part No. | Description | 1 | 5 |
|----------|----------------------------------|--------|--------|
| 226659CX | 7-pc. rotary finishing set | \$9.99 | \$8.99 |

7-Piece Engraving Cutter Set

- Ball tips
- Arrow head, v-cut
- Flat cut
- Bullet tip, round cut
- Fine point, v-cut
- Flat head



| Part No. | Description | 1 | 5 |
|----------|-------------------------------|---------|---------|
| 226624CX | 7-pc. engraving cutter set .. | \$17.95 | \$16.15 |

7-Piece Grinding/Polishing Set

- Aluminum oxide cylindrical stone
- Aluminum oxide blunt nose stone
- Cylindrical cotton
- Bullet head cotton
- Cylindrical cork



| Part No. | Description | 1 | 5 |
|----------|--------------------------------|---------|---------|
| 226667CX | 7-pc. grinding stone set | \$12.95 | \$11.25 |

Variable High-Speed Rotary Tool Kit

A multiple high-speed rotary tool kit with 6-speed selections ranging from 8,000 to 30,000 RPM, along with 40 bits and accessories, provides you all the power and precision you need to tackle almost any cutting, drilling, polishing, sanding or engraving job. With its high-speed output, plus a nylon body, you can grasp the tool lightly to perform fast rough work or delicate craftsmanship. A convenient shaft-lock button provides fast-and-easy accessory bit changing.



- 9" long variable-speed rotary tool
- Drum sander wheel
- 3 drum sander pads
- 2 felt buffing pads
- 6 disk sanding pads
- 4 rotary files
- One-year manufacturer's warranty

- Grinder dressing stone
- 7 disk grinders
- 2 drill bits

- Disk sanding arbor
- 10 rotary grinders
- Wrench

| Part No. | Description | Case Dimensions | Wt. (lbs.) | 1 | 5 |
|----------|----------------------------|------------------------|------------|---------|---------|
| 211289CX | High-speed rotary tool kit | 12.0"W x 7.0"D x 3.5"H | 3.3 | \$44.95 | \$42.95 |

30-Piece All-Purpose Bit Set



- 5 sander bands
- Copper wire brush wheel bit
- Cylindrical cotton bit
- Drum sander
- 8 aluminum carbide, cut-off metal wheels
- 4 aluminum carbide, cut-off wood wheels
- Bullet tip, round cut engraver point
- Flat head engraver point
- Aluminum oxide, cylindrical grinding stone bit
- Aluminum oxide, bullet head grinding stone bit
- Aluminum oxide, ball tip grinding stone bit
- Aluminum oxide, wheel-type grinding stone bit
- Aluminum oxide, grinding stone wheel
- Mandrel bit
- Steel brush bit

| Part No. | Description | 1 | 5 |
|----------|--------------------------------|---------|---------|
| 226675CX | 30-pc. all purpose bit set ... | \$28.95 | \$26.49 |

50-Piece Cut-Off Wheel Set



- 4 aluminum carbide cut-off wheels, 7/8"Dia.
- 18 aluminum carbide cut-off metal wheels, 15/16"Dia.
- 6 aluminum carbide cut-off wood wheels, 15/16"Dia.
- 18 aluminum carbide cut-off wheels, 1.0"Dia.
- 4 aluminum carbide cut-off wheels, 1 1/4"Dia.

| Part No. | Description | 1 | 5 |
|----------|--------------------------------|---------|---------|
| 226608CX | 50-pc. cut-off wheel set | \$24.49 | \$22.29 |

Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment.

Rotary Tool Accessory Bulk Packs



| Part No. | Description | Price | Part No. | Description | Price |
|-------------------|---|--------|----------|---|--------|
| 226561CX/226587CX | Aluminum carbide cut-off wheel 1 1/4"Dia. x 1/16"T (10 pk) | \$7.95 | 226456CX | Sander band aluminum oxide bit 1/2"Dia. (15 pk) | \$6.79 |
| 226587CX | Aluminum carbide cut-off wheel 1.0"Dia. x 0.02"T (20 pk) | 8.49 | 226501CX | Copper wire wheel 1.0"Dia. (3 pk) | 8.49 |
| 226552CX | Aluminum carbide cut-off wheel 15/16"Dia. x 0.02"T (20 pk) | 8.49 | 226499CX | Copper wire wheel 3/4"Dia. (3 pk) | 7.59 |
| 226595CX | Aluminum carbide cut-off wheel 15/16"Dia. x 0.02"T (4 pk), wood | 4.99 | 226536CX | Wool polishing wheel 1/2"Dia. (10 pk) | 8.95 |
| 226579CX | Aluminum carbide cut-off wheel 7/8"Dia. x 0.01"T (10 pk) | 8.49 | 226544CX | Wool polishing wheel 1.0"Dia. (10 pk) | 8.95 |
| 226510CX | Aluminum oxide grinding wheel 0.9" x 0.1" (10 pk) | 7.49 | 226448CX | Drum sander bit 1/2"Dia. (2 pk) | 2.95 |
| 226528CX | Aluminum oxide grinding wheel 0.9" (10 pk) | 7.49 | 226464CX | Drum sander bit 3/8"Dia. (2 pk) | 2.95 |
| 226472CX | Sander band 3/8"Dia. (8 pk) | 6.79 | 226481CX | Mandrel bit, 1-7/8" x 0.1" (4 pk) | 5.95 |

Digital Multimeter Quick Selection Guide

* See indicated page for more details on each product

All measure DC Voltage, AC Voltage, Resistance and Current, except as noted

| Handheld Digital Multimeters | | | | | | | | | | | | |
|--|---------------------|---------------------|-------------------|-----------------|-----------------|------------|-------------|------------|------------|-----------------|-----------------|------------|
| Manufacturer No. Part No. Best Sellers | Features | Standard Functions | Special Functions | Transistor Test | Continuity Test | Logic Test | Diode Test | Frequency | Inductance | Capacitance | True RMS | Unit Price |
| | | | | | | | | | | | | |
| Display Count | RS-232 PC Interface | Analog Bar Graph | Autorange | Capacitance | Inductance | Frequency | Temperature | Diode Test | Logic Test | Continuity Test | Transistor Test | Unit Price |
| 119212CX | ✓ | JE110 | 196 | 2000 | | | | | | | | \$19.95 |
| 220812CX | | Mastech M300 | 197 | 2000 | | | | | | | | 9.79 |
| 220855CX | | Mastech M83013 | 197 | 2000 | | | | | | | | 9.95 |
| 220759CX | | Mastech MAS830L | 197 | 2000 | | | | | | | | 15.49 |
| 220821CX | | Mastech M3900 | 197 | 2000 | | | | | | | | 28.95 |
| 27115CX | ✓ | Metex M3800 | 195 | 2000 | | | | | | | | 39.95 |
| 197958CX | | Extech MV110 | 198 | 2000 | | | | | | | | 36.95 |
| 265359CX | | Wavetek/MM 15XP | Below | 2000 | | | | | | | | 58.95 |
| 220741CX | | Mastech MAS838 | 197 | 2000 | | | | | | | | 22.95 |
| 220775CX | | Mastech MY64 | 197 | 2000 | | | | | | | | 38.79 |
| 220783CX | | Mastech M9704 | 197 | 2000 | | | | | | | | 34.95 |
| 177480CX | | AEEC2890 | 196 | 2000 | | | | | | | | 49.95 |
| 220791CX | | Mastech M9508 | 197 | 2000 | | | | | | | | 51.25 |
| 147096CX | | BelMerit DX460L | 198 | 2000 | | | | | | | | 94.95 |
| 160813CX | | Metex M3640D | 195 | 2000 | | | | | | | | 77.35 |
| 101936CX | | EZ Digital DM333 | 198 | 3200 | | | | | | | | 64.59 |
| 182035CX | | Fluke 73-III | Right | 3200 | | | | | | | | 158.95 |
| 220767CX | | Mastech MY68 | 197 | 3260 | | | | | | | | 35.95 |
| 220804CX | | Mastech M320 | 197 | 4000 | | | | | | | | 19.95 |
| 192583CX | | Wavetek/MM AC40A | 210 | 4000 | | | | | | | | 78.95 |
| 221989CX | | Metex P-09EF | 195 | 4000 | | | | | | | | 29.95 |
| 221971CX | | Metex P-10 | 195 | 4000 | | | | | | | | 36.95 |
| 216514CX | | Metex ME-31 | 196 | 4000 | | | | | | | | 56.95 |
| 211650CX | | Extech MN26 | 198 | 4000 | | | | | | | | 39.95 |
| 265367CX | | Wavetek/MM 35XP | Below | 4000 | | | | | | | | 78.95 |
| 222308CX | | Metex ME-32 | 196 | 4000 | | | | | | | | 75.95 |
| 221997CX | | Metex M3270D | 195 | 4000 | | | | | | | | 89.95 |
| 216522CX | | Metex ME-32F | 196 | 4000 | | | | | | | | 75.95 |
| 215589CX | | Metex M3890D | 196 | 4000 | | | | | | | | 99.95 |
| 117372CX | | Metex M3850D | 196 | 4000 | | | | | | | | 104.95 |
| 137461CX | ✓ | Metex M3860D | 196 | 4000 | | | | | | | | 149.95 |
| 190967CX | | Fluke 110 (No amps) | Right | 6000 | | | | | | | | 108.95 |
| 190975CX | | Fluke 111 | Right | 6000 | | | | | | | | 138.50 |
| 185527CX | | Fluke 112 | Right | 6000 | | | | | | | | 148.95 |
| 192655CX | | Fluke 175 | Right | 6000 | | | | | | | | 188.95 |
| 192663CX | | Fluke 177 | Right | 6000 | | | | | | | | 208.95 |
| 185535CX | ✓ | Fluke 179 | Right | 6000 | | | | | | | | 218.95 |
| 222527CX | | Wavetek/MM 37XR | 195 | 10,000 | | | | | | | | 129.49 |
| 222543CX | | Wavetek/MM 38XR | 195 | 10,000 | | | | | | | | 149.49 |
| 136590CX | ✓ | Mastech MY65 | 197 | 20,000 | | | | | | | | 73.49 |
| 144872CX | | Metex M4640A | 196 | 20,000 | | | | | | | | 132.95 |
| 222375CX | | Fluke 187 | Right | 50,000 | | | | | | | | 388.95 |
| 185201CX | | B&K BK5380 | 198 | 50,000 | | | | | | | | 149.99 |
| 182043CX | ✓ | Fluke 189 | Right | 50,000 | | | | | | | | 398.95 |

8-Function 2000-Count DMM with Safety Tester™

- 8 function/26 ranges & 6 range volt tester
- Resolution: 0.1mV maximum
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200V – 750V
- DC/AC current ranges: 200µA – 2A
- Resistance ranges: 200Ω – 20MΩ
- Diode test, continuity beeper, and logic test
- Size: 2.8"W x 1.3"D x 6.1"H
- One-year warranty



| Part No. | Product No. | 1 | 5 |
|----------|-------------|---------|---------|
| 265359CX | 15XP | \$58.95 | \$55.99 |

10-Function 4000-Count DMM with Safety Tester™

- 10 functions/39 ranges
- Digital bar graph display
- Resolution: 0.1mV maximum
- DC voltage ranges: 400mV – 1000V
- AC voltage ranges: 400mV – 750V
- DC/AC current ranges: 400µA – 2A
- Resistance ranges: 400Ω – 40MΩ
- Capacitance ranges: 4nF – 4mF
- Diode test, continuity beeper, and frequency
- One-year warranty
- Size: 2.8"W x 1.3"D x 6.1"H



| Part No. | Product No. | 1 | 5 |
|----------|-------------|---------|---------|
| 265367CX | 35XP | \$78.95 | \$74.99 |

Fluke 73 Series III 3200-Count Analog/Digital Multimeter

- 3200-count digital display with 31 segment analog bar graph
- Cat II 600V rating with overvoltage protection
- Automatic touch hold
- Default auto range mode
- Resolution: 100µV maximum
- DC/AC voltage ranges: 320mV – 600V
- DC/AC current ranges: 320mA – 10A
- Resistance ranges: 320Ω – 32MΩ
- Diode and continuity test
- Weight: 2.0 lbs.



| Part No. | Model No. | 1 | 5 |
|----------|--------------|----------|----------|
| 182035CX | Fluke 73 III | \$158.95 | \$150.99 |

Fluke 110 Series 6000-Count DMMs

- Basic DC accuracy of 0.7%
- True RMS reading
- Autorange
- Min./max./average functions
- CAT III 600V rated
- Resolution: 1mV maximum
- DC/AC voltage ranges: 6V – 600V
- Resistance ranges: 600Ω – 40MΩ
- Also capacitance, frequency and continuity
- Size: 11.8"L x 7.0"W x 3.0"H
- Weight: 1.3 lbs.



| Part No. | Model No. | AC/DC current | 1 | 10 |
|----------|-----------|------------------------|----------|----------|
| 190967CX | Fluke 110 | Not included | \$108.95 | \$103.49 |
| 190975CX | Fluke 111 | 10A / 6A/10A | 138.50 | 131.59 |
| 185527CX | Fluke 112 | 10A / 6A/10A (backlit) | 148.95 | 141.95 |

Fluke 175/177/179 6000-Count DMMs

- Min./max./average functions
- Auto hold and manual hold
- IEC 1010 rating Cat IV 600V/ Cat III 1000V
- Resolution: 100µV maximum
- DC/AC voltage ranges: 600mV – 1000V
- DC/AC current ranges: 60mA – 10A
- Resistance ranges: 600Ω – 50MΩ
- Also capacitance and frequency
- Size: 6.3"L x 3.3"W x 9.2"H
- Weight: 1.5 lbs.



| Part No. | Model No. | DC Accuracy | 1 | 5 |
|----------|------------|-------------------|----------|----------|
| 192655CX | Fluke 175 | 0.15% | \$188.95 | \$179.49 |
| 192663CX | Fluke 177 | 0.09% | 208.95 | 198.55 |
| 185535CX | Fluke 179 | 0.09% + temp. | 218.95 | 207.99 |
| 214308CX | Fluke 80BK | temperature probe | 19.95 | 18.95 |

Fluke 187/189 50,000-Count Analog/DMMs w/ Temperature

- Digital and analog bar graph display
- Backlight with 2 brightness levels
- Fast auto range
- AC/DC true RMS
- Resolution: 1µV maximum
- Resistance range: 500Ω – 500MΩ
- DC/AC voltage ranges: 50mV – 1000V
- DC/AC current ranges: 500µA – 10A
- Also capacitance, frequency & temp.
- Conductance, diode testing and continuity functions
- Wt.: 2.0 lbs.
- Size: 8.0"L x 3.9"W x 2.0" Thick



| Part No. | Model No. | Description | 1 | 5 |
|----------|------------|-------------------|----------|----------|
| 222375CX | Fluke 187 | w/o data logging | \$388.95 | \$369.55 |
| 182043CX | Fluke 189 | w/ data logging | 398.95 | 378.95 |
| 214308CX | Fluke 80BK | Temperature probe | 19.95 | 18.95 |

13-Function 10,000-Count True RMS Multimeter

- 13 functions, 43 ranges
- 4-digit LCD display with 41-segment analog bargraph
- Resolution: 100µV maximum
- **DC voltage ranges:** 1000mV - 1000V
- **AC voltage ranges (True RMS):** 1000mV - 750V
- **AC/DC voltage ranges:** 1000mV - 750V
- **DC/AC current ranges:** 100µA - 10A
- **Resistance ranges:** 1000Ω - 40MΩ
- **Capacitance ranges:** 40nF - 400µF
- **Temperature ranges:** -20°C - +1300°C (-4°F - +2372°F)
- **Frequency ranges:** 100Hz - 10MHz
- **Decibel ranges:** -13dBm - +50dBm
- Diode and continuity test
- Duty Cycle: 0% to 90%
- Min/Max, average, relative, peak and data hold
- Auto power off and auto-ranging
- Input lead warning
- Optical PC interface (P/N 222551CX): with the optional software and RS-232 cable, the multimeter can be used for real-time data acquisition using any industry standard Windows® PC
- CAT IV 600V, CAT III 1000V rated
- Size: 7.8"H x 3.6"W x 2.4"D • Weight: 1.0 lb.



WAVETEK® Metroman®

Includes: Test leads with threaded alligator clips, temperature adaptor, K-type thermocouple, 9V battery, spare fuse, and manual

| Part No. | Product No. | 1 | 5 |
|----------|-----------------------|----------|----------|
| 222543CX | 38XR | \$149.49 | \$141.99 |
| 222551CX | 38SW (software/cable) | 19.49 | 18.49 |

Deluxe Electronic Test Lead Kit

- One pair (red & black) of:
- One meter long test lead with a right-angle banana connector on one end
- Insulated probe tip extender
- Modular test probe with banana connector in handle
- Modular hook-style clip test lead with banana connector
- Modular pinch-style clip test lead with banana connector
- Insulated alligator clip
- Modular alligator clip with banana connector
- Slide-on IC probe tip adapter and test lead couplers
- Bare spade lug with banana connector



FLUKE

| Part No. | Product No. | 1 | 5 |
|----------|-------------|---------|---------|
| 222463CX | TL81A | \$98.95 | \$93.95 |

How to Test Almost Everything Electronic

TAB Publishing Filled with easy-to-follow instructions on how to troubleshoot all types of electronic systems. Learn the many uses of electronic tools, test equipment and troubleshooting techniques using flowcharts. (326 pages, 1993)

- Size: 7.4" x 9.3"
- Weight: 1.3 lbs.



| Part No. | Description | 1 | 10 |
|----------|------------------------|---------|---------|
| 126199CX | How to Test Everything | \$17.95 | \$16.15 |

10,000-Count True RMS Multimeter w/ Decibel Measurement, Component & Logic Test

- 13 functions, 42 ranges
- 4-digit LCD display with 41-segment analog bargraph
- Resolution: 100µV maximum
- **DC voltage ranges:** 1000mV - 1000V
- **AC voltage ranges:** 1000mV - 750V
- **DC/AC current ranges:** 100µA - 10A
- **Resistance ranges:** 1000Ω - 40MΩ
- **Capacitance ranges:** 40nF - 400µF
- **Inductance ranges:** 4mH - 40H
- **Frequency ranges:** 100Hz - 10MHz
- **Decibel ranges:** -13dBm - +50dBm
- Logic, continuity, diode test • Duty Cycle: 0 to 90%
- Input warning tone when test leads are in wrong jack
- Min/Max, average, relative, peak, and data hold
- Auto power off to save battery life • True RMS
- CAT III 600V and CAT II 1000V rated
- Size: 7.8"H x 3.6"W x 2.4"D • Weight: 1.0 lb.



WAVETEK® Metroman®

Includes: Spare fuse, test leads, and 9V battery

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 222527CX | 37XR | \$129.49 | \$122.99 |

METEX® 2000-Count Multimeter

0.6" Digit Height • LCD Readout

- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV - 1000V
- **AC voltage ranges:** 200mV - 700V
- **DC/AC current ranges:** 20µA - 20A
- **Resistance ranges:** 200Ω - 20MΩ
- Diode test and continuity beeper
- Auto zeroing
- Input impedance: 10MΩ
- Surge protection up to 3kV
- See page 209 for compatible leads (P/Ns: 77745CX, 21856CX, 21864CX)
- Size: 3.5"W x 1.3"D x 6.8"H
- Weight: 1.2 lbs. • One-year warranty



Includes: Probes, carrying case, manual & 9V battery

| Part No. | Product No. | 1 | 10 | 50 |
|----------|-------------|---------|---------|---------|
| 27115CX | M-3800 | \$39.95 | \$35.95 | \$32.49 |

2000-Count Multimeter w/ RS-232 & Dual Display

- Dual displays for comparative measurements
- 3½-digit LCD w/ 2000 counts (.65" digit height)
- Auto/min/max/data hold function
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV - 1000V
- **AC voltage ranges:** 200mV - 750V
- **DC/AC current ranges:** 2mA - 20A
- **Resistance ranges:** 200Ω - 2000MΩ
- Tests continuity, diode, transistor h_{FE}, frequency, capacitance and temperature
- Size: 3.2"W x 1.2"D x 7.1"H
- Weight: 1.8 lbs.
- One-year warranty

METEX®



Includes: PC interface cable, probes, temperature probe, manual, software and 9V battery

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 160813CX | M-3640D | \$77.35 | \$70.29 | \$63.89 |

METEX® 4000-Count Pocket Multimeters

- 3½-digit LCD display with 0.46" digit height
- Resolution: 100uV maximum
- Diode test
- Continuity buzzer
- Battery check
- Built-in test leads and battery
- Auto ranging and auto polarity indication
- Size: 4.6"H x 2.9"W x 0.7"D



221971CX

- **221971CX:**
- 10 functions, 13 ranges
- **DC voltage ranges:** 400mV - 400V
- **AC voltage ranges:** 4V - 400V
- **DC/AC current ranges:** 400µA - 400mA
- **Resistance ranges:** 400Ω - 40MΩ
- **Frequency ranges:** 10Hz - 10MHz
- **Capacitance ranges:** 40nF - 40µF
- Duty measurement of 100%



221989CX

- **221989CX:**
- 6 functions, 7 ranges
- **DC/AC voltage ranges:** 400mV - 400V
- **DC current ranges:** 400mA
- **Resistance ranges:** 400Ω - 40MΩ
- **Electric Field Test ranges:** 50VAC - 400VAC, 50-60Hz

SALE

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|----------------------------|---------|---------|
| 221971CX | P-10 | \$69.95 \$36.95 | \$33.26 | \$29.93 |
| 221989CX | P-09EF | \$57.95 29.95 | 28.45 | 34.29 |

4000-Count Multimeter with Dual Display and Bargraph

- 10 functions, 16 ranges
- 3½-digit LCD display with 43-segment bargraph and dual display
- Resolution: 100µV maximum
- **DC voltage ranges:** 400mV - 1000V
- **AC voltage ranges:** 4V - 750V
- **DC/AC current ranges:** 400µA - 20A
- **Resistance ranges:** 400Ω - 40MΩ
- **Capacitance ranges:** 4nF - 400µF
- **Frequency ranges:** 4kHz - 4MHz
- Diode, continuity, h_{FE} test
- Dual display for related readings
- Data-hold, range-hold, auto/min/max-hold and relative offset
- Memory and recall for 10 values
- Auto-ranging and auto polarity indication
- Size: 7.1"H x 3.3"W x 1.3"D



METEX®

Includes: Test leads and battery

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 221997CX | M-3270D | \$89.95 | \$85.49 |

30-Day Money-Back Guarantee

If you're not satisfied, we'll take it back!
Details on page 241.

4000-Count Multimeter with
RS-232 and Analog Bar

- 3½-digit LCD display with analog bar (0.6" digit height)
- RS-232 computer interface
- Automatic polarity indication
- Data hold/range hold function
- Resolution: 100µV maximum
- DC voltage ranges: 400mV-1000V
- AC voltage ranges: 400mV-750V
- DC/AC current ranges: 4mA-20A
- Resistance ranges: 400Ω-4MΩ
- Diode and continuity test
- Size: 3.3"W x 1.5"D x 7.3"H
- Weight: 1.9 lbs.



METEX®

Includes: Probes, 9V battery, software, RS-232 cable and manual

SALE

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 216514CX | ME-31 | \$56.95 | \$54.15 |

4000-Count Multimeters
w/ RS-232, Analog Bar
and Temperature

- 3½-digit LCD display (0.6" digit height) with bargraph
- Automatic polarity indication
- Range hold function
- RS-232 computer interface
- Resolution: 100µV max.
- DC voltage ranges: 400mV – 1000V
- AC voltage ranges: 400mV – 750V
- DC/AC current ranges: 4mA – 20A
- Resistance ranges: 400Ω – 4MΩ
- Capacitance ranges: 4nF – 400nF
- Temperature ranges: -4°F – 2000°F
- Continuity, diode and transistor h_{FE} test
- Size: 3.2"W x 1.5"D x 7.3"H • Weight: 1.7 lbs.

216522CX
(reading in °F only)

222308CX: same as above except with temperature measurement in °C only

Includes: Probes, K-type temperature probe, software, 9V battery and manual

SALE

| Part No. | Product No. | Description | 1 | 10 |
|----------|-------------|-------------|---------|---------|
| 216522CX | ME-32F | °F | \$75.95 | \$72.19 |
| 222308CX | ME-32 | °C | 75.95 | 72.19 |

4000-Count Multimeter w/
RS-232, Temperature & Autorange

- 3½-digit LCD (0.63" digit height)
- RS-232C computer interface
- Resolution: 100µV max.
- DC voltage ranges: 400mV – 1000V
- AC voltage ranges: 400mV – 750V
- DC/AC current ranges: 400µA – 20A
- Resistance ranges: 400Ω – 40MΩ
- Temperature: -40°C to +1200°C
- Diodes and continuity
- Measures transistor h_{FE}, frequency, and capacitance
- Autoranging all scale settings
- Size: 3.3"W x 1.8"D x 7.2"H • Weight: 1.8 lbs.



METEX®

Includes: Manual, software, RS-232 interface cable, temperature probe and probes

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|----------|---------|---------|
| 117372CX | M-3850D | \$104.95 | \$99.69 | \$94.69 |

4000-Count Multimeter
w/ RS-232, Dual Display,
Inductance & True RMS

- Dual displays for comparative measurements
- 3½-digit LCD (0.63" digit height)
- True RMS
- Resolution: 100µV maximum
- DC voltage ranges: 400mV – 1000V
- AC voltage ranges: 400mV – 750V
- DC/AC current ranges: 400µA – 20A
- Resistance ranges: 400Ω – 40MΩ
- Temperature: -40°C to +1200°C; 1°C resolution • Weight: 1.9 lbs.
- Measures inductance, capacitance, transistor h_{FE} and frequency
- Computer interface (RS-232C) w/ software & cable
- Autoranging all measurement settings
- Size: 3.3"W x 1.8"D x 7.2"H • One-year warranty



METEX®

Includes: 9V battery and software

| Part No. | Product No. | 1 | 10 |
|----------|-------------|----------|----------|
| 137461CX | M-3860D | \$149.95 | \$134.99 |

4000-Count Multimeter with
Triple Display, USB Interface
and Temperature

- 3½-digit LCD display with triple display (main/sub1/sub2) and analog bar (0.76" digit height)
- Dual-display readout for temperature in °C and °F
- Data hold, memory, relative offset, recall, range, minimum/maximum hold functions
- Auto power off • Auto ranging
- Computer interface: USB-A male to USB-B male cable with Windows® 98/ME/2000 software
- DC voltage ranges: 400mV – 1000V
- AC voltage ranges: 4V – 750V
- DC current ranges: 400µA – 20A
- AC current ranges: 400µA – 20A
- Resistance ranges: 400Ω – 40MΩ
- Capacitance ranges: 4nF – 200µF
- Frequency ranges: 4kHz – 4MHz
- Temperature: -40°F to 2192°F (-40°C to 1200°C)
- Diode, continuity, transistor h_{FE}, and logic test
- Size: 3.5"W x 1.7"D x 7.8"H • Weight: 1.6 lbs.



- Includes: Manual, probes, K-type thermocouple, USB-A male to USB-B male cable, software and 9V battery

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 215589CX | M-3890D | \$99.95 | \$94.99 |

Need Replacement
Batteries For Your
DMMs?
See pages
157 – 159.

20,000-Count Multimeter
w/ RS-232 & Multi-Display

- 0.63" digit height
- LCD readout
- Multi-display: 4 simultaneous displays for relative and comparative measurements
- Resolution: 10µV maximum
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 750V
- DC/AC current ranges: 2mA – 20A
- Resistance ranges: 200Ω – 20MΩ
- Capacitance ranges: 20nF – 200µF
- Frequency ranges: 20kHz – 2MHz
- Diode/continuity: measures forward resistance of a semiconductor junction in kΩ at a test current of approximately 1mA
- Measures transistor h_{FE}
- Size: 3.3"W x 1.5"D x 7.5"H • Weight: 2.0 lbs.
- LCD size: 2.4"W x 1.3"H • One-year warranty



METEX®



Includes: Software, test leads, PC interface cable, manual and 9V battery

SALE

| Part No. | Product No. | 1 | 10 |
|----------|-------------|----------|----------|
| 144872CX | M-4640A | \$132.95 | \$126.35 |

2000-Count Pocket Multimeter

- DC voltage ranges: 200mV, 2V, 20V, 200V, 1000V
- AC voltage ranges: 200V, 750V
- DC current ranges: 200µA, 2mA, 20mA, 200mA, 10A
- Resistance ranges: 200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ
- Diode and transistor tests
- 0.5" digit height
- Removable test leads
- Size: 2.6"W x 1.0"D x 4.8"H
- Weight: 0.5 lbs. • One-year warranty



Includes: 9V battery

| Part No. | Description | 1 | 10 | 50 |
|----------|-------------------|---------|---------|---------|
| 119212CX | Pocket multimeter | \$19.95 | \$17.95 | \$16.19 |

2000-Count Multimeter with
Temperature & Frequency
Measurement

- 3½-digit LCD (1.0" digit height)
- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 2V – 700V
- DC current ranges: 2mA – 10A
- AC current ranges: 200mA – 10A
- Resistance ranges: 200Ω – 20MΩ
- Capacitance ranges: 2nF – 20µF
- Frequency: 20kHz
- Temperature range: -20°C – 1000°C
- Data hold switch
- Diode, transistor and continuity testing
- Size: 4.0"W x 2.0"D x 8.0"H • Weight: 1.6 lbs.

Includes: Manual, probes, and 9V battery

| Part No. | Mfr. Cross Ref. No. | 1 | 10 |
|----------|---------------------|---------|---------|
| 177480CX | AEEC2890 | \$49.95 | \$44.95 |



Extremely Low Cost 7-Function 2000-Count Multimeter

- 3½-digit LCD display (0.5" digit height)
- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 500V
- AC voltage ranges: up to 500V
- DC current ranges: 200µA – 10A
- Resistance ranges: 200Ω – 2000kΩ
- Diode, continuity and transistor h_{FE} test
- Size: 2.7"W x 1.0"D x 5.0"H



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|--------|--------|--------|
| 220855CX | M830B | \$9.95 | \$9.45 | \$8.99 |

2000-Count Auto-Range Pocket Multimeter

- 3½-digit LCD display (0.43" digit height)
- Resolution: 100µV maximum
- DC voltage ranges: 2V – 500V
- AC voltage ranges: 200V – 500V
- DC current ranges: 200mA
- Resistance ranges: 2kΩ – 2000kΩ
- Diode and continuity test
- Size: 2.7"W x 0.8"D x 4.7"H



SALE

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|--------|--------|--------|
| 220812CX | M300 | \$9.79 | \$8.81 | \$7.93 |

8-Function 2000-Count Multimeter

- 8-functions/30 ranges
- 3½-digit LCD display (0.8" digit height)
- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 700V
- DC/AC current ranges: 20µA – 10A
- Resistance ranges: 200Ω – 20MΩ
- Diode, continuity and transistor h_{FE} test
- CAT II 1000V and CAT III 600V rated
- Size: 3.4"W x 1.3"D x 6.8"H



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 220821CX | M3900 | \$28.95 | \$27.49 | \$22.55 |

2000-Count Multimeter w/ Frequency & Temperature Measurements

- 3½-digit LCD display (1.0" digit height)
- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 700V
- DC/AC current ranges: 200µA – 10A
- Resistance ranges: 200Ω – 200MΩ
- Capacitance ranges: 2nF – 20µF
- Frequency ranges: up to 20kHz
- Temperature ranges: -20°C – +1000°C
- Diode, continuity, and transistor h_{FE} test
- Tilting LCD display • Hold data button
- Size: 4.0"W x 1.8"D x 8.0"H



SALE

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 220791CX | M9508 | \$51.25 | \$48.69 | \$46.25 |

2000-Count Multimeter w/ Temperature Measurement

- 8 function/17 ranges
- 2000-count 3½-digit LCD display (0.6" digit height)
- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 600V
- AC voltage ranges: 200V – 600V
- DC current ranges: 2mA – 10A
- Resistance ranges: 200Ω – 2MΩ
- Temperature ranges: -20°C – +1000°C
- Diode, transistor h_{FE} , and continuity test
- Data hold switch
- Size: 3.0"W x 1.4"D x 5.7"H



SALE

Includes: Test leads, and temperature probe

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 220741CX | MAS838 | \$22.95 | \$21.79 | \$20.69 |

2000-Count Multimeter with Diode and h_{FE} Test

- 2000-count 3½-digit LCD display (0.6" digit height)
- 7 function/17 ranges
- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 600V
- AC voltage ranges: 200V – 600V
- DC current ranges: 200µA – 10A
- Resistance ranges: 200Ω – 2MΩ
- Diode, continuity, and transistor h_{FE} test
- Data hold switch & backlight button
- Size: 3.0"W x 1.4"D x 5.7"H



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 220759CX | MAS830L | \$15.49 | \$13.94 | \$12.55 |

2000-Count Multimeter w/ Digital & Analog Pointer Display, Frequency & Temperature Measurements

- 3½-digit LCD display (0.7" digit height) with analog pointer
- Resolution: 100µV maximum
- DC/AC voltage ranges: 200mV – 600V
- DC/AC current ranges: 2mA – 200mA
- Resistance ranges: 200Ω – 20MΩ
- Capacitance ranges: 2nF – 20µF
- Frequency ranges: up to 20kHz
- Temperature ranges: -20°C to +1000°C
- Diode, continuity, and transistor h_{FE} test
- Zero adjustment knob for analog pointer display
- Built-in test leads • Size: 4.0"W x 1.5"D x 7.6"H



SALE

Includes: K-type thermocouple

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 220783CX | M9704 | \$34.95 | \$31.46 | \$28.31 |

Over 99% of our products
are in stock!

We'll Send It Today!

Just place your order by 6PM EST
for same business day shipment.

2000-Count Multimeter w/ Temperature & Frequency Measurements

- 11 functions/33 ranges
- 2000-count LCD display with 1" digit height
- Resolution: 100µV max.
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 700V
- DC/AC current ranges: 2mA – 10A
- Resistance ranges: 200Ω – 200MΩ
- Capacitance ranges: 2nF – 20µF
- Frequency ranges: 2kHz – 20kHz
- Temperature ranges: -20°C – +1000°C
- Diode, continuity, and transistor h_{FE} test



Includes: Test leads and K-type thermocouple

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 220775CX | MY64 | \$38.79 | \$34.91 | \$31.42 |

3260-Count Multimeter with Analog Bargraph & Frequency Measurements

- 10-functions/29 ranges
- 3260-count 0.67" digit height LCD display with analog bar graph
- Resolution: 100µV maximum
- DC voltage ranges: 326mV – 1000V
- AC voltage ranges: 3.26V – 750V
- DC/AC current ranges: 326µA – 10A
- Resistance ranges: 326Ω – 32.6MΩ
- Capacitance ranges: 326nF – 32.6µF
- Frequency ranges: 32.6kHz – 150kHz
- Diode, continuity, and transistor h_{FE} test
- Auto range and data hold push button

SALE



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|----------------------------|---------|---------|
| 220767CX | MY68 | \$36.79 \$35.95 | \$32.36 | \$29.12 |

4000-Count Auto-Range Pocket Multimeter

- 3¾-digit LCD display (0.43" digit height)
- Resolution: 100µV maximum
- DC/AC voltage ranges: 4V – 500V
- DC/AC current ranges: 40mA – 400mA
- Resistance ranges: 400Ω – 40MΩ
- Diode and continuity test
- Size: 2.7"W x 0.8"D x 4.8"H
- Data hold button
- Built-in test leads

SALE



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|----------------------------|---------|---------|
| 220804CX | M320 | \$21.95 \$19.95 | \$17.95 | \$16.16 |

Our Lowest Priced 20,000-Count Multimeter

- Extra-large digits (0.8" digit height)
- Resolution: 10µV maximum
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 2V – 700V
- DC/AC current ranges: 2mA – 10A
- Resistance ranges: 200Ω – 200MΩ
- Capacitance ranges: 200pF – 20µF
- Measures transistor h_{FE} & continuity
- Hold button • Auto power off
- Size: 3.9"W x 1.9"D x 8.0"H
- Weight: 1.5 lbs. • One-year warranty



| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 136590CX | MY65 | \$73.49 | \$66.15 | \$59.55 |

2000-Count Multimeter with Inductance

- Function and range annunciators
- Data hold
- Resolution: 100µV max.
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 750V
- DC/AC current ranges: 200µA – 10A
- Resistance ranges: 200Ω – 20MΩ
- Capacitance ranges: 2nF – 2000µF
- Frequency ranges: 2kHz – 20MHz
- Inductance ranges: 20mH – 20H
- Diode and continuity test
- Auto power off
- $Z_{IN} = 10M\Omega$
- Size: 4.0"W x 1.5"D x 8.0"H • Weight: 2.7 lbs.

CE



SALE

BelMERIT

Includes: Manual, test probes and 9V battery

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 147096CX | DX460L | \$94.95 | \$90.25 |

2000-Count Multimeter w/ Adjustable Viewing Angle

- Adjustable 1" LCD display for better viewing
- Auto power-off
- Improper test lead position alarm alerts user if position does not match function
- Accuracy: $\pm 0.5\%$ for DCV
- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 750V
- DC/AC current ranges: 20µA – 10A
- Resistance ranges: 200Ω – 200MΩ
- Tests diode, continuity and transistor h_{FE}
- Size: 3.5"W x 1.3"D x 7.3"H • Weight: 0.6 lbs.

SALE



Tilttable Screen



EXTECH

Includes: Test leads, protective holder and 9V battery

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 197958CX | MV110 | \$36.95 | \$35.19 | \$33.45 |

Autoranging 3200-Count Analog/Digital Multimeter

- 3½-digit (0.53" digit height) LCD with analog bar graph
- Resolution: 100µV maximum
- DC voltage ranges: 320mV – 1000V
- AC voltage ranges: 320mV – 750V
- DC/AC current ranges: 320µA to 10A
- Resistance ranges: 320Ω – 32.59MΩ
- Data hold
- Diode/continuity test
- Auto range • Auto power off
- Size: 3.9"W x 1.5"D x 7.7"H • Weight: 1.5 lbs.

SALE

CE

EZ DIGITAL



| Part No. | Mfr. Cross Ref. No. | 1 | 10 |
|----------|---------------------|---------|---------|
| 101936CX | DM333 | \$64.59 | \$61.39 |

We'll match the print advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

11-Function 4000-Count Multimeter with Autorange

- 4000-count large LCD display
- Auto ranging with manual override
- Resolution: 0.1mV max.
- AC/DC voltage ranges: 400mV – 600V
- AC/DC current ranges: 400µA – 10A
- Resistance ranges: 400Ω – 40MΩ
- Capacitance ranges: 4nF – 200µF
- Frequency ranges: 10Hz – 10MHz
- Temperature ranges: 0°F – 1400°F (0°C – 760°C)
- Diode test, duty cycle and continuity
- Relative zero, data hold, range hold, auto off
- Size: 2.4"W x 1.6"D x 4.8"H • Weight: 0.6 lbs.



EXTECH

Includes: Protective holster with stand, two 1.5V AAA batteries and test leads

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 211650CX | MN26 | \$39.95 | \$37.95 |

4000-Count True RMS Multimeter with IR Thermometer

- Built-in IR thermometer with laser pointer distance of 8:1 to target ratio, 0.95 fixed emissivity
- Audible and visual input alerts
- Relative function for establishing a base line reference
- 1" digit height LCD display with backlight
- Accuracy: $\pm 0.3\%$ for VDC
- Resolution: 100µV maximum
- DC/AC voltage ranges: 400mV – 600V
- DC/AC current ranges: 400µA – 20A
- Resistance ranges: 400Ω – 40MΩ
- Capacitance ranges: 4nF – 100µF
- Frequency ranges: 10Hz – 10MHz
- Temperature ranges (Type K): -4°F to 518°F (-20°C to 270°C)
- Diode and continuity test
- Size: 3.2"W x 2.0"D x 7.4"H • Weight: 0.8 lbs.



EXTECH

Includes: Test leads, multi-position tilt stand and velcro strip, protective holster, and 9V battery

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 245948CX | EX470 | \$128.95 | \$122.49 |

50,000-Count Digital Multimeter with Analog Bargraph

- True RMS reading
- Auto and manual ranging
- Large LCD display provides easy readability; all test parameters in clear view (0.55" digit height)
- AC/DC voltage protection
- Continuity and diode testing
- Basic DC accuracy: 0.025%
- DC voltage ranges: 500mV – 1000V (10µV – 100mV resolution)
- AC voltage ranges: 500mV – 750V (10µV – 100mV resolution)
- AC/DC current ranges: 500µA – 10A (10µA – 1mA resolution)
- Resistance: 500Ω – 50MΩ (10mΩ – 1kΩ res.)
- Capacitance: 50nF – 50mF (10pF – 10µF res.)
- Frequency: 0.6Hz – 500kHz
- Size: 3.2"W x 1.6"D x 7.5"H • Weight: 1.5 lbs.

CE



BK PRECISION

Quantity
SAVE

Includes: Probes and manual

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|----------|----------|---------|
| 185201CX | BK5380 | \$149.99 | \$127.49 | \$95.65 |

Pocket Analog Multimeter

- DC/AC voltage ranges: 0 – 500V
- DC current ranges: 0 – 250mA
- Resistance ranges: 0 – 1kΩ
- Size: 2.3"W x 1.2"D x 3.6"H

Quantity
SAVE



Includes: Insulated probes

Requires: 1.5V battery (recommend P/N 198707CX, pg 157)

| Part No. | Description | 1 | 10 | 50 |
|----------|-------------------|--------|--------|--------|
| 206287CX | Pocket multimeter | \$8.95 | \$7.61 | \$5.71 |

Digital LCR Meter

- 3½-digit display (0.5" digit height)
- Inductance ranges: 200µH to 200H
- Capacitance ranges: 200pF to 2000µF
- Resistance ranges: 2mΩ to 20MΩ
- Dissipation factor measurement
- Size: 3.3"W x 1.4"D x 6.7"H
- Weight: 1.1 lbs.
- One-year warranty



Includes: Test leads and 9V battery

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------|----------|----------|----------|
| 127538CX | LCR meter | \$149.95 | \$134.95 | \$121.46 |

Passive Component LCR Meter

- Measures L, C, and R with secondary parameter Q, D or R; both are displayed
- Accuracy of 0.7% for L & C, 0.5% for R
- Inductance ranges: 2000.0uH to 2000.0H
- Capacitance ranges: 2000.0pF to 2000.0uF
- Resistance ranges: 20.000Ω to 20.000MΩ
- Test frequencies of 120Hz and 1kHz
- Dissipation Factor (D) reading: 0 to 0.9999
- Quality (Q) reading: 0 to 9999
- Selectable parallel or series equivalent circuit
- Set HI/LO limits, absolute or percentage
- 4½-digit backlit LCD display
- Bidirectional RS-232 port with optional software
- Max./Min./Avg. recording with auto power off
- Size: 3.6"W x 2.1"D x 7.6"H
- Weight: 0.8 lbs.



198678CX

Includes: Test leads, alligator clips, 9V battery and holster

| Part No. | Description | 1 | 10 |
|----------|----------------------|----------|----------|
| 198678CX | LCR Meter | \$178.95 | \$160.95 |
| 189237CX | 9VDC @ 300mA adapter | 4.25 | 3.59 |

High Voltage AC/DC Test Probe

- Maximum voltages: DC: 40kV, AC: 40kV peak, 28kVrms
- Accuracy: DC: $\pm 1.5\%$, AC: $\pm 5\%$
- 10MΩ meter input impedance required
- Input/output impedance: 1,000MΩ/1.1MΩ
- Cable length: 39"
- Probe length: 14" • Weight: 0.8 lbs.



| Part No. | Description | 1 | 10 |
|----------|-----------------------|---------|---------|
| 132290CX | High volt. test probe | \$79.95 | \$72.95 |

2000-Count Benchtop Multimeter

- 8 functions, 33 ranges
- LCD display with 0.5" digit height
- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 1000V (0.5% accuracy)
- AC voltage ranges: 200mV – 750V (1% accuracy)
- DC/AC current ranges: 200µA – 20A
- Resistance ranges: 200Ω – 20MΩ
- Capacitance ranges: 2nF – 20µF (2% accuracy)
- Diode and continuity test
- Input voltage: 110/220VAC @ 50-60Hz
- Size: 9.6"W x 11.0"D x 3.7"H
- Weight: 4.4 lbs.



SALE

INSTEK

Includes: Power cord, operations manual & test leads

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 229227CX | GDM-8034 | \$224.95 | \$213.75 |

2000-Count Multimeter

The Fluke 8012A is a portable, bench-type, digital multimeter with 3½ digit liquid crystal display (LCD).

- Resolution: 100µV maximum
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 700V
- DC/AC current ranges: 20µA – 2A
- Resistance ranges: 2Ω – 20Ω (low range) 200Ω – 20MΩ
- Conductance ranges: 2µS – 200nS
- Size: 7.5"W x 9.6"D x 2.5"H
- Weight: 2.6 lbs. † Refurbished



FLUKE

| Part No. | Product No. | Price |
|----------|-------------|----------|
| 203801CX | 8012A† | \$199.95 |

4000-Count True RMS Benchtop Multimeter with RS-232

- 9 functions, 32 ranges
- 3½-digit backlit LCD display with bargraph
- Auto/manual ranging
- True RMS AC volts and amps
- Resolution: 100µV maximum
- DC voltage ranges: 400mV – 1000V (0.3% accuracy)
- AC voltage ranges: 4V – 750V
- DC/AC current ranges: 4mA – 10A
- Resistance ranges: 400Ω – 40MΩ
- Capacitance ranges: 4nF – 40µF
- Frequency ranges: 100Hz – 600kHz
- Diode and continuity test • Delay hold mode
- Min., max., and relative hold function
- Input voltage: 9V battery or 90-132VAC/198-264VAC @ 50-60Hz
- Size: 9.0"W x 9.4"D x 3.3"H
- Weight: 3.3 lbs. • Two-year warranty



Protek

Includes: Manual, test leads, power adapter, 9V battery, RS-232 cable and software (98/ME/2000/XP compatible)

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 230586CX | B940 | \$148.95 | \$141.55 |

20,000-Count True RMS Benchtop Multimeter

- 4½-digit green LCD
- DC accuracy: 0.05%
- Full overload protection
- Resolution: 10µV max.
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 750V
- DC/AC current ranges: 2mA – 10A
- Resistance ranges: 200Ω – 20MΩ
- Frequency measurement up to 200kHz
- Continuity check with beeper
- Data hold, diode check, transistor h_{FE} measurement available
- Size: 9.9"L x 9.8"W x 3.6"H • Weight: 6.1 lbs.
- One-year manufacturer's warranty



EZ DIGITAL

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|----------|----------|----------|
| 132564CX | DM441 | \$219.95 | \$209.95 | \$199.95 |

20,000-Count Benchtop Multimeter w/ RS-232, Analog Bar & 4 Displays

- Automatic polarity indicator
- 1-2 readings per second
- DC accuracy: 0.1% +5 digits
- 10 reading storage and compare
- Resolution: 10µV max.
- DC voltage ranges: 200mV – 1000V
- AC voltage ranges: 200mV – 750V
- DC/AC current ranges: 2mA – 20A
- Resistance ranges: 200Ω – 20MΩ
- Frequency ranges: 20kHz – 20MHz
- Min., max., average, relative functions
- Logic, diode, transistor h_{FE} and continuity test
- Size: 11.2"L x 8.2"W x 3.2"H • Weight: 7.5 lbs.

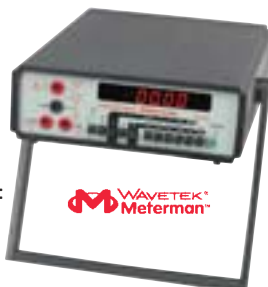


METEX

| Part No. | Product No. | 1 | 10 |
|----------|-------------|----------|----------|
| 166852CX | MXD4660A | \$249.95 | \$224.95 |

20,000-Count True RMS Benchtop Multimeter

- 6 functions, 22 ranges
- 4½-digit red LED display with 0.5" digit height
- Resolution: 10µV maximum
- DC voltage ranges: 200mV – 1200V (0.03% accuracy)
- AC voltage ranges: 200mV – 1000V (0.03% accuracy)
- DC/AC current ranges: 200µA – 20A
- Resistance ranges: 200Ω – 20MΩ
- Diode test • AC or AC+DC coupling
- Interlocking push buttons for easy selection
- 3600 adjustable tilting bail for maximum readability of display
- Input power: 117VAC or 234VAC @ 50-60Hz
- Size: 13.0"W x 9.0"D x 3.1"H • Weight: 4.7 lbs.



WAVETEK Meterman

SALE

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 222578CX | BDM40 | \$419.95 | \$379.95 |

50,000-Count Dual-Display True RMS Benchtop Multimeter

- 9 functions, 38 ranges
- Dual display indicates ACV and Hz, DCV (ACV) and dBm, or DCV and ACV ripple
- Auto range/manual operating modes
- AC or AC+DC true RMS
- RS-232 interface
- Resolution: 10uV maximum
- DC voltage ranges: 500mV – 1200V (0.03% accuracy) • Diode and continuity test
- AC voltage (True RMS) ranges: 500mV – 1000V
- DC/AC current ranges: 500µA – 20A
- Resistance ranges: 500Ω – 20MΩ
- Capacitance ranges: 5nF – 50µF
- Frequency ranges: 10Hz – 200kHz
- Min., max., dBm, relative and hold functions
- Input voltage: 120/230V @ 50-60Hz
- Size: 9.9"W x 11.5"D x 3.6"H • Weight: 5.7 lbs.
- Two-year warranty



INSTEK

SALE

Includes: Power cord, operations manual & test leads

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|--------|
| 229235CX | GDM-8245 | \$449.95 | 427.49 |

100,000-Count Dual-Display True RMS Benchtop Multimeter

A feature-rich 5-digit, 100,000 count meter that truly fits all applications and virtually any measurement needed on the workbench or in the field. Two multifunction displays and 16 different measurement capabilities allow wide ranging versatility at an affordable price. The Fluke 45 delivers high performance and flexibility for manufacturing test, depot & field service, as well as R&D applications.



FLUKE

- Multifunction vacuum fluorescent dual display allows the user to measure two different parameters of the same signal from one test connection, and view both measurements at the same time.
- True RMS voltage and current, including AC + DC
- Frequency measurement to 1 MHz
- dB measurements: 21 selectable reference impedances from 2 to 8000, and audio power from 2W to 16W • 2.5 reading per second
- Compare (Hi/Low/Pass) function for quick in-tolerance tests • Resolution: 1µV maximum
- 0.05% DC current accuracy for 4-20mA current loop service • 8 functions, 31 ranges
- Diode and continuity test
- DC voltage ranges: 100mV – 1000V
- AC voltage ranges (True RMS; AC-coupled): 100mV – 750V
- DC/AC current ranges: 10mA – 10A
- Resistance ranges: 100Ω – 100MΩ
- Frequency ranges: 1kHz – 1MHz
- Size: 8.5"W x 11.3"D x 3.7"H

5% Below New Fluke Price

222367CX: RS-232 interface; Weight: 5.2 lbs
229833CX: GPIB interface with battery; Weight: 7.0 lbs.
222359CX: Battery pack; Weight: 1.8 lbs.

| Part No. | Product No. | Description | 1 | 5 |
|----------|-------------|--------------------|----------|----------|
| 222367CX | FLK-45 | RS-232 interface | \$799.95 | \$759.95 |
| 229833CX | FLK-45-15 | GPIB interface ... | 999.95 | 949.95 |
| 222359CX | FLK-45-01K | Battery pack only | 184.95 | 175.69 |



90-Watt Digital DC Power Supply

30VDC @ 3A

- Constant current and constant voltage operation
- Can be used for positive or negative source
- Overload protection circuit
- Input voltage: 100/240VAC @ 50-60Hz
- Size: 5.2"W x 5.6"H x 10.0"D
- Weight: 10.9 lbs.
- One-year warranty



| Part No. | Product No. | 1 | 10 |
|----------|-------------|----------|----------|
| 121152CX | GP4303D | \$189.95 | \$179.95 |

150-Watt Digital Power Supply

30VDC @ 5A

- Adjustable voltage/current outputs
- Constant voltage and current operation
- LCD displays for both current and voltage
- Coarse and fine adjustment knobs for current and voltage
- Color-coded terminals for positive, negative and ground connections
- 2A @ 250V fuse
- Dual digital display
- Input voltage: 110/220VAC @ 50-60Hz (switchable)
- One-year warranty
- Size: 5.4"W x 10.7"D x 6.0"H • Weight: 13.8 lbs.



| Part No. | Description | 1 | 10 | 25 |
|----------|----------------|----------|----------|----------|
| 153242CX | 30VDC @ 5A ... | \$234.95 | \$211.49 | \$190.35 |

150-Watt Power Supply

50VDC @ 3A

- Adjustable voltage/current outputs
- Constant voltage & current operation
- Color-coded terminals for ground, positive and negative terminals
- 3A @ 115V fuse
- Color-coded adjustment knobs for voltage, current and fine adjustment
- Input voltage: 110VAC @ 60Hz
- Color: dark gray
- Size: 9.0"L x 4.75"W x 7.5"H
- Weight: 12.3 lbs. • One-year warranty



| Part No. | Description | 1 | 10 | 25 |
|----------|-------------|----------|----------|----------|
| 163723CX | 50VDC @ 3A | \$143.95 | \$136.75 | \$129.89 |

100-Watt Triple Output Digital and Analog DC Power Supplies

30VDC @ 3A

- Triple output with fixed 5VDC @ 0.5A, 12VDC @ 0.5A
- Adjustable 0 – 30V voltage and 0 – 3A current outputs
- Displays of both voltage and current
- Constant voltage or current
- Current limiting indicator
- Overload and short circuit protection
- Binding post terminals for variable supply
- Input voltage: 110/220VAC @ 50-60Hz (switchable)
- Size: 9.5"L x 6.0"W x 5.6"H • Weight: 10.0 lbs.



197991CX



197982CX

| Part No. | Description | 1 | 10 |
|----------|-------------|----------|----------|
| 197991CX | Digital DC | \$198.95 | \$178.95 |
| 197982CX | Analog DC | 168.95 | 151.95 |

150-Watt Linear Power Supply

15VDC @ 10A

- Output voltage: 2VDC to 15VDC
- Output current: 15A max.
- Constant voltage operation
- Color-coded terminals for positive and negative terminals, voltage adjustment knob
- Overvoltage, overcurrent, short-circuit protection
- Cigarette lighter output current plug
- LED indicator for power and warning
- Current and voltage panel meter
- Built-in fan
- Input voltage: 110VAC @ 60Hz
- Size: 5.7"L x 6.2"W x 4.0"H • Weight: 12.0 lbs.



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 25 |
|----------|---------------------|----------|----------|----------|
| 175265CX | DPS150A | \$149.95 | \$134.95 | \$129.95 |



100W to 600W Benchtop Power Supplies

- Voltage and current adjustable
- Current restricted and short-circuit protection
- Input voltage: 110/220 ±10% VAC

Analog display power supplies

- Accuracy: 2.5%

Digital display power supplies

- Voltage accuracy: 1% + 2 digits
- Current accuracy: 1.5% + 2 digits



207618CX



207706CX



211705CX

Single Output

| Part No. | Product No. | Displays | Power (W) | Voltage (VDC)/Current (A) | Size (W"xH"xD") | Wt. (lbs.) | 1 | 10 |
|----------|-------------|-----------|-----------|---------------------------|-------------------|------------|----------|----------|
| 207618CX | HY3005C | 2-Analog | 150 | 30/5 | 5.4 x 6.2 x 11.5 | 14 | \$159.95 | \$144.95 |
| 207626CX | HY3010C | 2-Analog | 300 | 30/10 | 10.4 x 6.5 x 14.4 | 28 | 299.95 | 269.95 |
| 207693CX | HY5002 | 2-Digital | 100 | 50/2 | 5.4 x 6.2 x 11.5 | 13 | 189.95 | 170.95 |
| 207706CX | HY5003 | 2-Digital | 150 | 50/3 | 5.4 x 6.2 x 11.5 | 14 | 249.95 | 224.95 |
| 207600CX | HY5005 | 2-Digital | 250 | 50/5 | 10.4 x 6.5 x 14.4 | 28 | 299.95 | 269.95 |
| 207634CX | HY3010 | 2-Digital | 300 | 30/10 | 10.4 x 6.5 x 14.4 | 32 | 399.95 | 359.95 |
| 207685CX | HY3020 | 2-Digital | 600 | 30/20 | 10.4 x 6.5 x 14.4 | 46 | 499.95 | 449.95 |

Multiple Output

| Part No. | Product No. | Displays | Power (W) | Voltage (VDC)/Current (A) | Size (W"xH"xD") | Wt. (lbs.) | 1 | 10 |
|----------|-------------|-----------|-----------|---------------------------|-------------------|------------|----------|----------|
| 211721CX | HY3002-2 | 2-Digital | 120 | 0-30/2; 0-30/2 | 10.4 x 6.5 x 14.4 | 23 | \$249.95 | \$224.95 |
| 211705CX | HY3002D-2 | 4-Digital | 120 | 0-30/2; 0-30/2 | 10.4 x 6.5 x 14.4 | 23 | 269.95 | 242.95 |
| 211692CX | HY3003D-2 | 4-Digital | 180 | 0-30/3; 0-30/3 | 10.4 x 6.5 x 14.4 | 28 | 289.95 | 259.95 |
| 211730CX | HY3003-2 | 2-Digital | 180 | 0-30/3; 0-30/3 | 10.4 x 6.5 x 14.4 | 28 | 299.95 | 269.95 |
| 211713CX | HY3003-3 | 2-Digital | 195 | 0-30/3; 0-30/3; 5/3 | 10.4 x 6.5 x 14.4 | 29 | 319.95 | 287.95 |
| 211684CX | HY3003D-3 | 4-Digital | 195 | 0-30/3; 0-30/3; 5/3 | 10.4 x 6.5 x 14.4 | 29 | 329.95 | 296.95 |

225-Watt Analog Power Supply

15VDC @ 15A

- Output voltage: 9VDC to 15VDC
- Output current: 25A max. (22A continuous @ 13.8VDC)
- Constant voltage operation
- Over-voltage protection @ 16.5V
- Short-circuit protection @ 27.5A
- Color-coded adjustment knob and output terminals for voltage
- Cigarette lighter plug for current output
- Power and fan LED indicator • Built-in fan
- Voltage and current panel meter
- Input voltage: 110VAC/220VAC @ 47-63Hz (switchable)
- Size: 5.6"L x 6.2"W x 4.0"H • Weight: 3.8 lbs.



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 25 |
|----------|---------------------|----------|----------|----------|
| 175257CX | SPS250A | \$159.95 | \$143.95 | \$129.56 |

250-Watt Analog Power Supply

50VDC @ 5A

- Adjustable voltage/current outputs
- Constant voltage and current operation
- Color-coded adjustment knobs for voltage, current, and fine tuning
- Color-coded terminals for ground, positive, negative
- 5A @ 250V fuse • Isolated ground
- Input voltage: 110VAC @ 50-60Hz
- Color: dark gray
- Size: 4.9"L x 7.7"W x 6.7"H • Weight: 13.8 lbs.



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 25 |
|----------|---------------------|----------|----------|----------|
| 175249CX | DPS5050 | \$189.95 | \$179.95 | \$171.49 |

110-Watt Programmable Linear Power Supply with PC Interface

- 0-36V @ 0-3A
- Resolution: 1mV/1mA
- 10 memory settings
- Voltage/current regulation: $\pm 0.03\%$ load; $\pm 0.02\%$ line
- Ripple: $\leq 2\text{mV RMS}$
- Over-voltage and current protection
- Input voltage: 110/220VAC @ 50-60Hz
- Size: 8.3"W x 9.8"D x 3.5"H
- Weight: 13.2 lbs. • Two-year warranty



Protek

Includes: Manual, power cord, rack-mounting kit, RS-232 cable and software (98/2000/ME/XP compatible)

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 230578CX | P6000 | \$298.95 | \$283.95 |

200W Programmable Switching Power Supplies with PC Interface

- Voltage regulation: $\leq 10\text{mV load}$; $\leq 0.05\%$ line
- Current regulation: $\leq 5\text{mA load}$; $\leq 0.05\%$ line
- Output ON/OFF control
- Ripple: $\leq 20\text{mV}_{\text{rms}}$; $\leq 10\text{mA}_{\text{rms}}$
- Over-voltage/over-current/over-power/over-temperature protection
- Standard RS-232C 9-pin female interface
- Input voltage: 115/230VAC @ 50-60Hz
- Size: 8.9"W x 12.0"D x 3.9"H
- Weight: 8.8 lbs. • Two-year warranty



INSTEK

Includes: Power cord, operations manual & test leads

| Part No. | Product No. | Description | 1 | 5 |
|----------|-------------|----------------|----------|----------|
| 229323CX | PSP-2010 | 0-20V @ 0-10A | \$349.95 | \$332.45 |
| 229294CX | PSP-603 | 0-60V @ 0-3.5A | \$349.95 | \$332.45 |

500-VA AC Power Source with True RMS Meter

- Wide range variable output voltage/frequency
- 4 save/recall voltage and frequency memories
- Over-temperature, over-current, short circuit protection
- Output: 0.0-300.0VAC in 0.1V steps; 100 and 220VAC selectable
- Frequency: 45.0 - 500.0Hz: 0.1Hz steps to 100.0Hz and 1Hz steps to 500Hz
- Load and Line regulation: 0.1V or 0.5%
- Frequency stability: $\leq 0.01\%$
- True RMS voltage display ranges: 0.0 - 380.0V
- True RMS current display ranges: 0.00 - 2.00A or 1.80 - 35.00A
- Watt display ranges: 0.0 - 360.0W or 320.0 - 3500.0W
- Power factor display ranges: 0.000 - 1.000
- Waveform: sinewave with $\leq 0.5\%$ THD
- Input voltage: 115/230VAC @ 50-60Hz
- Size: 16.9"W x 19.7"D x 5.4"H
- Weight: 55.1 lbs. • Two-year warranty



INSTEK

SALE

Includes: Power cord and operations manual

| Part No. | Product No. | 1 | 5 |
|----------|-------------|------------|------------|
| 229382CX | APS-9501 | \$1,439.95 | \$1,367.95 |

150MHz 2-Channel Digital Oscilloscope

Color and Monochrome with RS-232/USB/Parallel Interfaces

- Bandwidth (-3dB): 150MHz
- Real-time sample rate: 100MS/s maximum on each channel; equivalent: 25GS/s
- 2 channels with 8-bit vertical resolution
- Record length 125k/CH • FFT function
- Auto set vertical, horizontal, and trigger level
- 15 memory settings
- Vertical sensitivity: 2mV/div - 5V/div
- Time base range: 1ns/div - 10S/div
- Trigger sensitivity: DC - 25MHz: 0.35div or 3.5mV; 25MHz - 150MHz: 1.5div or 10mV
- Input voltage: 100-240VAC @ 50-60Hz
- Frequency counter: 6 digits $\pm 50\text{ppm}$; AC coupled, 10Hz - 150MHz • Two-year warranty
- Size: 12.2"W x 10.0"D x 5.6"H • Weight: 9.3 lbs.



INSTEK

229307CX: Monochrome scope
229358CX: Monoch. w/ RS-232/USB/parallel interface
229366CX: Color with RS-232/USB/parallel interface

Includes: BNC cable, power cord & operations manual

| Part No. | Product No. | 1 | 5 |
|----------|-------------|------------|------------|
| 229307CX | GDS-820 | \$1,169.95 | \$1,111.49 |
| 229358CX | GDS-820S | 1,259.95 | 1,196.95 |
| 229366CX | GDS-820C | 1,439.95 | 1,367.95 |

Handheld 1MHz Digital Oscilloscope and Multimeter

Six Units in One!

- 4,000 count True-RMS DMM
- 1MHz bandwidth oscilloscope
- 20MHz sampling rate
- Logic test
- Frequency counter
- Trend mode allows recording of sine waves for a period of time
- Component test • Three-year warranty



FREE
Protective Boot -
\$19.95 value!

Includes: AC charger, test leads & manual.

| Part No. | Description | 1 | 5 |
|----------|---------------------------|----------|----------|
| 160805CX | 440 digital scope | \$285.18 | \$259.26 |
| 168330CX | RS-232 software and cable | 69.95 | 62.95 |

Handheld 2MHz Digital Oscilloscope

- 10MHz for repetitive signals; 2MHz for single shot events
- Input impedance: 1M Ω /20pF
- Max. input voltage: 100V peak (AC + DC)
- Input coupling: DC, AC, and GND (GND for auto zero reference)
- LCD graphics display: 112 x 192 pixels • Vertical resolution: 8-bit
- Timebase range: 50ns to 1 hr./div
- Input sensitivity: 5mV to 20V/div
- Trigger mode: run, normal, once, and \pm slope • Linearity: ± 1 bit
- True RMS and dB measurements
- High contrast LCD display w/ 3.3" viewing angle
- Recommend 9VDC @ 300mA power supply (133891CX, pg 150) • Screen hold
- Batteries not included, recommend 151087CX, pg 157 • Weight: 1.0 lb.



velleman

Includes: Insulated BNC-to-alligator clip measurement probes

| Part No. | Description | 1 | 5 |
|----------|-----------------|----------|----------|
| 236507CX | 2MHz DSO (HPS5) | \$194.95 | \$185.25 |

Handheld 5MHz Digital Oscilloscope w/ True RMS Multimeter

- 5MHz bandwidth; 25MS/s sampling rate
- Auto power off
- RS-232 PC interface
- 160 x 160 pixel graphical display with backlight
- Vertical sensitivity: 10mV - 200V per div. (14 div.)
- Single channel with 1M Ω impedance
- 4000-count dual display with analog bargraph
- Resolution: 100uV maximum
- **DC voltage ranges:** 400mV to 1000V
- **AC voltage ranges:** 400mV to 700V
- **DC/AC current ranges:** 400mA to 20A
- **Resistance ranges:** 400 Ω to 40M Ω
- **Capacitance ranges:** 40nF to 100 μ F
- **Frequency ranges:** 1Hz to 5MHz
- DBm, diode and continuity test
- Max/Min/Average w/ sampling rate & graphical plot
- Size: 4.2"W x 2.2"D x 8.3"H • Weight: 1.8 lbs.



EXTECH

INTELLIGENCE

Includes: Protective holster, built-in stand, Windows® 95-XP compatible software, RS-232 cable, 6 AA batteries, fuse, test leads, and alligator clips

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 245930CX | 381285 | \$398.95 | \$378.95 |

Handheld 5MHz Oscilloscope with 4000-Count Digital Multimeter

- 128 x 128 pixel graphic STN LCD
- E/L backlight
- PC interface via RS-232
- Memory and recall for 4 values
- Temperature measurement

Oscilloscope:

- DC-5MHz bandwidth; 20MS/sec. sampling rate; single channel
- Vertical axis: 3 steps ($\pm 0.5/5/50$ volts) with 4 divisions
- Horizontal axis: 16 steps (800ns/div to 26.2ms/div) in 8 divisions
- Trigger: auto and internal mode, slope and 5 trigger level selectable
- Text display for peak to peak, min./max. voltage and frequency



221962CX

METEX®

Digital Multimeter:

- 3 1/2-digit with 43 segment bargraph
- Auto ranging; triple display for related reading; data and range hold; auto/min/max hold and relative offset
- **DC voltage ranges:** 400mV - 1000V
- **AC voltage ranges:** 4V - 750V
- **DC/AC current ranges:** 400uA - 400mA
- **Resistance ranges:** 400 Ω - 40M Ω
- **Frequency ranges:** 4kHz - 4MHz
- **Temperature ranges:** -40°C - +1200°C
- **Capacitance ranges:** 4nF - 400 μ F
- Diode and continuity
- Size (unit): 3.4"W x 1.5"D x 8.0"H • Weight: 3.9 lbs.

Includes: Manual, power adapter and test leads

| Part No. | Description | 1 | 5 |
|----------|--------------------------|----------|----------|
| 221962CX | MS-1280 (w/ temperature) | \$349.95 | \$332.95 |
| 221938CX | RS-232 cable & software | 19.95 | 18.95 |
| 221946CX | Scope probe | 24.95 | 23.69 |
| 221954CX | Holster | 5.95 | 4.75 |

Detailed specifications for Test Equipment
www.Jameco.com

Handheld 20MHz Digital Oscilloscope & Multimeter

- 4-in-1: digital oscilloscope, DMM, frequency counter & logic analyzer
- Oscilloscope:** 2-channel input, 5mV-2V/div; DC-20MHz(-3dB); 50ns - 0.5us/div; 20 MS/s sampling rate
- Logic analyzer:** 8 inputs; 1.4V threshold level; 35VDC max. input; 50ns min. pulse width
- Digital multimeter:** 3 1/2-digit (max. 3999 counts); 40 segment analog bargraph; AC/DC voltage 400mV-600V; AC current 40uA-400mA; DC current 400uA-400mA; resistance 400Ω-40MΩ; continuity & diode testing
- Frequency counter:** 5Hz-20MHz; 5 digit max.; autoranging; AC/DC/DC input coupling; ±10ppm accuracy; 35Vrms/42V-P/60VDC max. input
- Oscilloscope probes: Use P/N 22891CX or 216047CX, pg 203
- Battery required for portable use (see below)
- Size: 10.0"L x 5.0"W x 2.0"H
- Weight: 9.2 lbs. • One-year warranty

Includes: Manual, 5VDC @ 3A power supply, power cord, DMM test leads, holster and case

| Part No. | Description | 1 | 5 |
|----------|-------------------------|----------|----------|
| 162430CX | 20MHz digital scope | \$749.95 | \$712.95 |
| 162974CX | Logic probe | 59.95 | 53.95 |
| 163141CX | Rechargeable battery | 45.95 | 41.49 |
| 162966CX | RS-232 cable & software | 26.95 | 24.25 |
| 221946CX | Scope probe | 24.95 | 23.69 |

METEX®



(Shown w/ logic probe P/N 162974CX - not included)

Fluke 123 20MHz Industrial Scopemeter® with FlukeView Software

Digital Scope, 15-Function Digital Multimeter & Recorder

The Fluke 123 is the ideal choice for troubleshooting industrial machinery, instrumentation, and power systems. Automatically recognizes signal patterns and sets up correct triggering, timing, and amplitude for stable displays.

- Recorder:** dual-channel TrendPlot™
- Digital Scope:** dual-input 20MHz oscilloscope with 1.25GS/sec. repetitive sampling rate
- Digital Multimeter:** dual-input 5000-count True RMS meter with ohms, capacitance & temperature
- Size: 4.5"W x 2.0"D x 9.1"H • Weight: 5.8 lbs.

FlukeView Software (Version 3.04)

- Documenting: transfer screens, waveforms & data to your PC for printing or importing to other programs
- Archiving: store and retrieve waveforms with text annotations and create your own library
- Analysis: gather valuable data and enable cursor measurement, extend recording of up to four user-selected measurements, upload waveforms and use cursors for detailed measurements
- Compatible with Windows® operation system

| Part No. | Product No. | Price |
|----------|--------------------------|------------|
| 203131CX | Fluke 123S (refurbished) | \$1,099.95 |

SALE



Fluke 124 40MHz Oscilloscope w/ 5000-Count Digital Multimeters and Paperless Recorder

The compact ScopeMeter 124 is the rugged solution for industrial troubleshooting and installation applications.

It's a truly integrated test tool, with oscilloscope, multimeter and "paperless" recorder in one affordable, easy-to-use instrument.

FlukeView software helps you get more out of your Scopemeter by:

- (A) Documenting** by transferring waveforms, screens and measurement data from the ScopeMeter to a PC; **(B) Adding** user text to individual ScopeMeter settings provides guidance to the operator when recalling a set-up; **(C) Archiving** creates a library of waveforms with your comments for easy reference and comparison; **(D) Storing** complete Replay cycles for analysis of waveform changes and memory content for back-up purposes; and **(E) Analyzing** use cursors, perform spectrum analysis or export data to other analysis programs.

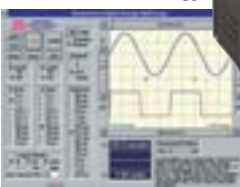
- Dual-input 40MHz or 20MHz digital oscilloscope
- Two 5,000-count true-RMS digital multimeters
- A dual-input TrendPlot™ recorder
- Connect-and-View™ trigger simplicity for hands-off operation • Optically isolated RS-232 interface
- Shielded test leads for oscilloscope, resistance and continuity measurements
- 10:1 Voltage Probe included for reduced circuit loading • 600 V CAT III safety certified

| Part No. | Product No. | 1 | 5 |
|----------|-----------------------|------------|------------|
| 222421CX | FLK-124 | \$1,399.95 | \$1,329.50 |
| 222412CX | FLK124S (w/ software) | 1,699.95 | 1,614.95 |

SALE

PC-MultiScope 20MHz 2-Channel Digital Oscilloscope

mission technology



Turn your PC into a digital storage oscilloscope for 1/2 the cost of a DSO!

- 100MHz sampling; dual channel
- Chart recorder and FFT mode
- 5mV to 5V per div.; 20MHz bandwidth; ext. trigger
- 0-4MHz sine and square wave signal generator
- Triple power supply: 5VDC @ 500mA and ±0-8VDC @ 250mA • One-year warranty
- Size: 4.3"L x 5.0"W x 1.5"H • Weight: 3.8 lbs.

Includes: Parallel port cable, AC adapter, alligator clip probe, Windows® 3.1/95/98 software

| Part No. | Description | 1 | 10 |
|----------|-----------------|----------|----------|
| 163230CX | PC-MultiScope 3 | \$579.95 | \$529.95 |

Fluke 190 Series 200MHz Scope-Meters w/ 5000-Count DMMs

Color and B/W

With up to 200MHz bandwidth, 2.5 GS/s real-time sampling and a deep memory of 27,500 points per input, they're ideal for engineers who need the full capabilities of a high-performance oscilloscope in a handheld, battery-powered instrument.



- Dual-input - 200 or 100MHz bandwidth
- Up to 2.5 GS/s real-time sampling per input
- Connect-and-View™ automatic triggering and a full range of manual trigger modes
- Digital Persistence for analyzing complex dynamic waveforms like on an analog scope
- Fast display update rate for seeing dynamic behavior instantaneously
- Automatic capture and replay of 100 screens
- 27,500 points per input record length using ScopeRecord mode • TrendPlot paperless chart recorder for trend analysis up to 22 days
- Up to 1000V independently floating isolated inputs
- Waveform reference for visual comparisons and automatic pass/fail testing of waveforms
- Vpwm function for motor drive and frequency inverter applications
- 1000 V CAT II and 600 V CAT III safety certified
- Four-hour rechargeable NiMH battery pack

211220CX: Includes FlukeView software

Includes: Test leads, probes and manual

SALE

| Part No. | Product No. | 1 | 5 |
|----------|-------------------------|------------|------------|
| 222404CX | FLK-196C (100MHz) color | \$2,599.95 | \$2,469.95 |
| 222383CX | FLK-199C (200MHz) color | 2,899.95 | 2,754.95 |
| 222391CX | FLK-199B (200MHz) B&W | 2,599.95 | 2,469.95 |
| 211220CX | FLK-199B/S (200MHz) † | 1,999.95 | 1,818.81 |

† Refurbished

50MHz Digital PC-Based Oscilloscope, Spectrum Analyzer and Transient Recorder

- Sampling frequency: 1.25kHz-50MHz real-time; 1GHz repetitive
- Input Impedance: 1MΩ/30pF
- Parallel Port Interface
- Inputs: 2 channels, 1 external trigger input
- Max. input voltage: 100V (AC and DC)
- Power required: 9V to 10V @ 1000mA (recommend P/N 100888CX, pg 150)



velleman

Oscilloscope:

- Timebase: 20ns-100ms per division
- Input sensitivity: 5mV-15V per division with auto step-function
- Recording length: 4096 samples per channel

Spectrum Analyzer:

- Frequency range: 0 to 25MHz

Transient Recorder:

- Time scale: 20ms/div-2000s/div
- Max. recording time: 9.4 hours/screen
- Max. number of samples: 100/s

System requirements: IBM compatible PC, Windows® 95/98/ME, SVGA card, mouse, printer port, CD-ROM

Includes: 2 test leads, PC parallel cable, manual and CD-ROM software

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 200184CX | PCS500AU | \$478.95 | \$429.95 |

Phone 1-800-831-4242 Online www.Jameco.com Fax 1-800-237-6948

Order Anytime 24x7x365

20MHz 2-Channel Analog Oscilloscope

EZ DIGITAL

Blue CRT for higher resolution!



- 6" rectangular high-resolution blue CRT with internal graticule & scale
- Vertical deflection: 5mV/div to 5V/div in 10 calibrated steps
- Horizontal deflection: 0.2μs/div to 0.2s/div in 19 calibrated steps, 1-2-5 sequence
- Max. signal input voltage: 250V (DC and peak AC)
- ADD function measures sum of two signals
- Input voltage: 98-125VAC @ 1A, 198-225VAC @ 0.5A, 50-60Hz, 45W
- Two-year manufacturer's warranty
- Size: 16.4"L x 12.6"W x 5.3"H • Weight: 20.8 lbs.

Includes: Two (X1/X10) 40MHz probes, power cord, manual, and block diagram

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 136098CX | OS5020 | \$399.95 | \$385.95 |

20MHz 2-Channel Analog Oscilloscope with 1MHz Function Generator

Basic specs same as OS5020 (above)
Function generator

- Frequency range: 0.1Hz to 1MHz (7 ranges)
- Output waveforms: sine, triangle, square, TTL pulse
- Output impedance: 50Ω
- Output voltage: 14Vp-p
- Size: 12.6"L x 12.6"W x 6.8"H
- Weight: 23.8 lbs.
- Two-year manufacturer's warranty

Includes: Two X1/X10 40MHz probes, power cord, manual, BNC to alligator, and cable

| Part No. | Product No. | 1 | 10 |
|----------|-------------|----------|----------|
| 94650CX | OS5020G | \$529.95 | \$499.95 |

20MHz 2-Channel Analog Oscilloscope with Built-in Component Checker

- 6" rectangular CRT with internal graticule
- Built-in component checker/tester for resistors, capacitors, coils, diodes
- Vertical sensitivity: 5mV/div to 20V/div in 12 calibrated steps (1-2-5 sequence)
- Input impedance: 1MΩ, 20pF
- Max. input (vertical amplifier): 300VDC or AC peak
- Horizontal sweep time: 0.2μs/div to 0.5s/div in 20 calibrated steps (1-2-5 sequence)
- Internal trigger sensitivity: 20Hz to 20MHz
- Size: 17"L x 14"W x 5.75"H • Weight: 15.5 lbs.

- Two-year warranty

Includes: Two X1/X10 60MHz probes, power cord, and operations manual

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 201857CX | P-3502C | \$394.95 | \$375.19 |

20MHz 2-Channel Analog Oscilloscope with Alt-Mag and 1mV/div Sensitivity

- Large 6" CRT with internal graticule
- Alt-Mag sweep for simultaneous displays of the main and X5 magnified trace
- Auto-focus
- Input voltage: 100V, 120V, 220V, 240V @ 50-60Hz (selectable)
- Size: 14.8"L x 13.4"W x 5.5"H • Weight: 24 lbs.



Protek

- **Vertical Amplifier**
- Sensitivity – 1mV/div to 1V/div (X5 Mag); 5mV/div to 5V/div in 10 steps (1-2-5 seq.)
- Bandwidth: (-3dB): DC to 20MHz
- Input impedance: 1M ohms, 25pF
- Maximum input voltage: 400V (DC or AC peak)
- **Horizontal Sweep**
- Sweep time: 0.1μs/div to 0.2S/div in 20 steps (1-2-5 seq); X5 mag: 20ns/div to 40ms/div
- **Triggering**
- Sensitivity: Internal – DC to 2MHz: 2 divisions; 2MHz to 20MHz: 3 divisions

Includes: X1 and X10 probes, power cord & manual

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 220679CX | PROTEK 6502 | \$448.95 | \$425.95 |

20MHz 2-Channel Analog Oscilloscope with 1mV/div Sensitivity

- 6" rectangular CRT with internal graticule
- Input sensitivity: 1mV/div
- Vertical deflection: 1mV/div – 1V/div (X5Mag); 5mV – 5V/div in 10 steps (1-2-5 sequence)
- Bandwidth (-3dB): DC – 20MHz
- Input impedance: 1MΩ, 25pF
- Horizontal deflection: 0.2μs/div – 0.2s/div in 19 steps (1-2-5 sequence); X10Mag extends maximum sweep rate to 20ns/div
- Trigger system: internal and external trigger system
- External maximum input voltage: 300V (DC+AC)
- Input voltage: 110V/220V @ 48-62Hz
- Size: 14.5"L x 12.2"W x 5.1"H • Weight: 14.3 lbs.



| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 226261CX | AEEC-2550S | \$389.95 | \$369.95 |

100MHz 2-Channel Analog Oscilloscope

- 2-channel dual trace
- Delay line
- Auto focusing according to intensity
- Size: 16.9"L x 12.6"W x 5.5"H
- Weight: 22.8 lbs.
- Two-year warranty

Includes: Two (X1/X10) 100MHz probes, power cord, and operations manual

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 121179CX | OS5100 | \$999.95 | \$949.95 |

100MHz Delayed Sweep Analog Oscilloscope w/ Cursor Readout 2 Channel

- Bandwidth (-3dB): DC-100MHz
- Cursor readout with 7 measurements
- Time base auto range
- 10 save-and-recall memories
- Z-axis modulation input
- TV synchronization
- Vertical sensitivity: 2mV – 5V/div, 11 steps in 1-2-5 sequence; 2mV/div max. to 20MHz
- Max. input voltage: 400V DC+AC peak @ 1kHz or less
- Input impedance: 1MΩ ±2%, 25pF
- Main sweep time (A): 50ns – 0.5s/div
- Delay sweep time (B): 50ns – 50ms/div
- 6" continuously adjustable rectangular CRT with internal graticule, 8x10 div. • Delay time: 1μs – 5s
- Input voltage: 100/120/230VAC @ 50-60Hz (switchable) • Size: 12.2"W x 17.9"D x 5.9"H
- Weight: 19.8 lbs. • Two-year warranty



SALE

Includes: BNC cable, power cord & operations manual

| Part No. | Product No. | 1 | 5 |
|----------|-------------|------------|------------|
| 229278CX | GOS-6103 | \$1,439.95 | \$1,367.99 |

100MHz Delayed Sweep Analog Oscilloscope w/ Frequency Counter 2 Channel, 4 Trace

- DC to 100MHz bandwidth
- 6" rectangular CRT with internal graticule
- Auto set, readout cursor, delay sweep, hold-off functions
- Z-axis intensity modulation: DC to 20MHz bandwidth; 30VDC + peak AC max. input voltage
- Vertical deflection factor: 2mV/div to 5V/div
- Horizontal time base A/B deflection: 5ns/div to 0.5s/div in 22 calibrated steps
- Input coupling: AC, GND, DC
- Rise time: 3.5ns or less • Weight: 17.6 lbs.

Includes: Two X1/X10 100MHz probes, power cord, and operations manual

| Part No. | Product No. | 1 | 5 |
|----------|-------------|------------|------------|
| 190932CX | OS5100RB | \$1,199.95 | \$1,139.95 |

Modular Oscilloscope Probes



- 22891CX
- 216047CX
- 236777CX
- Hook and pointed probes
- 216047CX/236777CX: with IC test ground cover and spring ground contact • Length: 5'
- Alligator clip ground wire • BNC male connector
- Maximum input voltage: 600V

| Part No. | Bandwidth (±3dB) | | Impedance (R/C) * | |
|----------|------------------|--------|-------------------|-----------|
| | Attenuation | | Attenuation | |
| | x1 | x10 | x1 | x10 |
| 22891CX | 6MHz | 60MHz | 1MΩ/180pF | 10MΩ/22pF |
| 216047CX | 6MHz | 100MHz | 1MΩ/47pF | 10MΩ/16pF |
| 236777CX | 6MHz | 250MHz | 1MΩ/47pF | 10MΩ/14pF |

* with 20pF oscilloscope input

| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 50 |
|----------|---------------------|---------|---------|---------|
| 22891CX | LF101E | \$24.95 | \$22.46 | \$20.21 |
| 216047CX | HF-9100 | 34.95 | 29.95 | 26.95 |
| 236777CX | HP-9250 | 45.95 | 43.39 | 37.25 |

Detailed specifications for Test Equipment
www.Jameco.com

1GHz Spectrum Analyzers with Digital Display and RS-232 Interface

- Frequency ranges: 150kHz – 1GHz
- Fully digital phase-locked-loop design
- High frequency stability: ± 10 ppm
- Two markers for absolute and relative measurement with resolution of 0.1dB, 1kHz
- 9 save-and-recall memories
- Max. hold, average (2 – 32 traces), freeze, peak search, marker-to-center functions
- High span resolution to measure detailed signal: zero, and 2kHz – 100MHz/div in a 1-2-5 sequence
- Bandwidth resolution: 3kHz, 30kHz, 220kHz, 4MHz
- High input protection level: +30dBm continuous, ± 25 VDC
- Input impedance: 50 Ω nominal
- FM/AM demodulator: WBFM 120kHz; MBFM 75kHz; NBFM 30kHz deviation
- Input voltage: 100/120/220/230VAC @ 50-60Hz
- RS-232 interface to PC
- Size: 12.2"W x 17.9"D x 5.9"H
- Weight: 19.2 lbs.

229340CX:

- With tracking generator: frequency range of 150kHz – 1GHz; 0 – 50dBm amplitude range with 1dB resolution; <30dBc harmonics; 50 Ω nominal impedance

Includes: Operations manual

| Part No. | Product No. | 1 | 5 |
|----------|-------------|------------|------------|
| 229315CX | GSP-810 | \$2,137.49 | \$2,030.65 |
| 229340CX | GSP-810TG | \$2,949.95 | 2,802.49 |



INSTEK

120MHz Frequency Counter

- Frequency and period measurement
- Frequency range: 1Hz to 120MHz
- Gate time: 0.1s, 1s, 10s
- 8-digit LED display (0.3" digit height) with Hz, kHz, MHz, s, ms, us, ns, and overflow
- Input sensitivity: 15mVrms 10Hz – 10MHz; 50mVrms at 120MHz
- Selectable low pass filter
- Impedance: 1M Ω , 35pF
- Time base oscillation frequency/aging rate: 10MHz ± 1 PPM per month
- Input voltage: 100/120/220/230VAC @ 50-60Hz
- Size: 9.1"W x 11.0"D x 3.7"H
- Weight: 3.8 lbs.
- Two-year warranty

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 229243CX | GFC-8010H | \$224.95 | \$213.75 |



INSTEK

SALE

1.5GHz Frequency Counters

2 Channels

- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- Gate time: 0.01s, 0.1s, 1s, 10s
- 9-digit green LED display
- Size: 10.3"L x 10.0"W x 3.2"H
- One-year warranty

Includes: Fuse, manual and BNC cable

55790CX:

- Frequency range: 0.1Hz to 150MHz (A input); 50MHz to 1.5GHz (B input)
 - Resolution: 0.1Hz to 10Hz (A input); 0.1Hz to 100kHz (B input)
 - Frequency, period, totalize, RPM
 - Weight: 5.3 lbs.
- 201873CX: With Time Interval and Ratio**
- Frequency range: 0.1Hz to 150MHz (A/B input); 50MHz to 1.5GHz (C input)
 - Resolution: 1Hz to 10Hz
 - Sensitivity: 20Vrms (A, B input); 30Vrms (C input)
 - Impedance: 1M Ω , < 40pF (A, B inputs), 50 Ω (C input)
 - Totalize, period & RPM function
 - Weight: 6.0 lbs.

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 55790CX | FC-7150 | \$284.95 | \$259.95 |
| 201873CX | FC-7150U | \$329.95 | \$313.49 |



201873CX

EZ DIGITAL

SALE

100MHz Logic Analyzer USB Interface

DigiView™ is a new 18-channel, 100MHz logic analyzer with professional quality and high portability. DigiView™ uses a deep-capture buffer and real time hardware compression to achieve long period captures without reducing resolution.

- 18-channels, 100MHz
- USB interface and power source for portability
- Real time hardware compression
- Compression ratio up to 256,000:1
- Trigger on rising, falling, or transition of any channel
- Pre-trigger and post-trigger data capture
- Captures up to 5 minutes of data @ 10ns resolution

| Part No. | Description | 1 | 5 |
|----------|-----------------------|----------|----------|
| 256866CX | USB logic analyzer | \$498.95 | \$474.09 |
| 256874CX | Cable replacement | 29.95 | 28.49 |
| 256882CX | Grabber clip set (10) | 29.95 | 28.50 |



Over 99% of our products are in stock!

We'll Send It Today!

Just place your order by 6PM EST for same business day shipment.

2.4GHz Programmable Universal Counter with RS-232 Interface

- Measures frequency, period, duty cycle, RPM, frequency ratio, difference frequency, time interval, and totalize
- Frequency ranges: 2.4GHz (Ch C); 120MHz (Ch A & B)
- Resolution: .00001Hz (Ch A/B); 100Hz (Ch C)
- Plots trend graph on LCD display
- Compare, relative error, and min./max. functions
- 8 set-up screens can be saved and retrieved from memory
- Gate times: 50ms to 10s (20 settings)
- Display: 128 x 64 pixel super twist LCD
- RPM measurement range: 0 to 600,000 RPM
- Duty cycle range: 0.01% to 99.99% with frequency range of 0 to 100kHz
- Channel A/B inputs: sensitivity of 25mV; input impedance of 1M Ω , 35pF capacitance; maximum input volts of 250V DC or AC peak
- Channel C input: sensitivity 25mVrms; input impedance of 50 Ω , and maximum input voltage of 5VDC or AC peak
- RS-232 interface with PC software for controlling, displaying data, and data logging
- Input voltage: 85-270VAC @ 48-66Hz
- Size: 11.6"W x 11.0"D x 3.3"H
- Weight: 4.4 lbs.

Includes: Manual, power cord, BNC cable, RS-232 and software (98/2000/ME/XP compatible)

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 230560CX | C3100 | \$399.95 | \$379.95 |



Protek

2MHz Sweep Function Generator with Frequency Counter

- Frequency range: 0.02Hz–2MHz in 7 ranges
- Sweep width: 1:1 to 100:1; rate: 20ms to 25s (.5Hz-50Hz)
- Output impedance: 50 Ω $\pm 5\%$
- Frequency counter range: 0.2Hz to 50MHz
- Maximum input voltage: 150Vrms @ 1kHz
- Input voltage: 115/230VAC @ 50-60Hz (switchable)
- Size: 10.3"L x 10.0"W x 3.2"H
- Weight: 5.8 lbs.
- One-year warranty

Includes: Probe and detachable power cord

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 94676CX | FG7002C | \$329.95 | \$296.95 |



EZ DIGITAL

PROBE MASTER Oscilloscope Probes

Designed for use with Tektronix and Hewlett Packard oscilloscopes.

- 3 position switch: x1, ref, x10
- Bandwidth @ 3dB: 10MHz (x1); 150MHz (x10)
- Loading: 57pF, 1M Ω (x1); 15pF, 10M Ω (x10)
- Low-resistance gold contacts
- Cord length: 5'

174473CX: 7-piece kit
212214CX/212257CX: 25-piece kit

| Part No. | Product No. | 1 | 10 |
|----------|------------------|---------|---------|
| 174473CX | 4901-02 (150MHz) | \$43.95 | \$41.75 |
| 212214CX | 4915 (150MHz) | 134.95 | 128.19 |
| 212257CX | 4915A (250MHz) | 149.95 | 142.49 |



174473CX



212214CX

Pomona® 100MHz Probe Set

- Complete accessory kit included
- Attenuation: x1/x10
- Bandwidth: 15/100MHz (-3dB)
- Risetime: 23.33/3.5ns
- Input resistance: 1/10M Ω
- Capacitance: 64/10.5pF
- Compensation range: 10-60pF
- 48" cable

| Part No. | Product No. | Description | 1 | 10 |
|----------|-------------|-------------|---------|---------|
| 156451CX | 4550B | Probe kit | \$51.95 | \$46.95 |



2MHz & 10MHz Sweep Function Generators w/ Frequency Counter

Function Generator

- Wave forms: sine, square, triangle, skewed, ramp, pulse & TTL level square
- Frequency: 2Hz to 2MHz in 7 ranges (192671CX); 1Hz to 10MHz (221911CX)
- Output amplitude: 2 to 20Vpp at open load; 1 to 10Vpp at 50Ω load
- Output impedance: 50Ω ±10%
- Offset variable range (max.): ±10VDC at open load
- Frequency sweep time: 20ms to 2s



221911CX

METEX®

SALE

Frequency Counter

- Measuring range: channel A: 1Hz to 20MHz; channel B: 20MHz to 2.7GHz
- Input sensitivity: channel A: 20mVRMS sine wave or 100mVp-p; channel B: 40mVRMS for 20MHz to 1.3GHz; 70mVRMS for 1.3GHz to 2.7GHz
- Maximum input voltage: channel A: 35Vp-p; channel B: 3Vp-p
- Input impedance: channel A, 1MΩ; channel B, 50Ω
- Data logging and graphic software
- Size: 11.0"L x 8.2"W x 3.7"H • Weight: 13.4 lbs.

Includes: Coax & power cable, manual, serial cable and software

| Part No. | Description | 1 | 5 |
|----------|--------------|----------|----------|
| 192671CX | 2MHz/2.7GHz | \$319.95 | \$303.95 |
| 221911CX | 10MHz/2.7GHz | 417.95 | 396.99 |

2MHz Sweep Function Generator

- Waveforms: sine, square, triangle, pulse, ramp
- Frequency ranges: 0.02Hz – 2MHz in 7 ranges
- Tuning range: 100:1 on each range
- DC offset and voltage controlled frequency (VCF) inputs
- Amplitude: 2Vp-p – 20Vp-p open circuit
- Output impedance: 50Ω ±5%
- Less than 2% sine wave distortion
- Variable symmetry: 1:1 to 4:1 • TTL sync output
- Linear sweep mode • 20ms to 2s variable sweep time
- Input voltage: 100/120/220/240VAC @ 48-66Hz
- Size: 8.8"W x 10.1"D x 3.3"H • Weight: 8.0 lbs.
- Two-year warranty



Protek

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 230594CX | B801 | \$244.95 | \$232.69 |

METEX® 4-in-1 Universal System

With Function Generator, Universal Counter, DC Power Supply & Digital Multimeter

- Function generator** capable of generating seven forms of waves (sine, square, triangle, skewed sine, ramp, pulse, and TTL square wave) in seven frequency ranges from 0.2Hz to 2MHz
- Universal counter** capable of measuring frequency ranges from 5Hz to 1.3GHz
- DC power supply** capable of generating 5V @ 2A, 15V @ 1A fixed and 0 to 30V @ 0 to 2A variable
- Digital multimeter** with ranges of: DC voltage (400mV to 100V), AC voltage (400mV to 750V), DC/AC current (40mA to 20A), resistance (40Ω to 40MΩ), capacitance (4nF to 400μF) and forward resistance of a semiconductor junction in kΩ
- Size: 14.5"W x 14.0"D x 7.0"H
- Weight: 37 lbs. • One-year warranty



Less Bench Space – Great Convenience

Includes: Manual, cables and software

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 160864CX | MS9150 | \$549.95 | \$499.95 |

AC/DC Electrical Hi-Pot Tester

- 500VA AC output
- True RMS current readings
- ACW/DCW test: 0.1 – 5kV output voltage with ±3% accuracy
- Arc detection of 0.3 – 100mA on AC/DC
- Test time: 1 – 180 seconds or continual
- Voltage output adjustable during test period
- 3 ranges of adjustable current protection: over/under/none • Zero turn-on operating switch
- Automatic FAIL indicator of alarm lamp and buzzer
- 9-pin remote control for START, RESET
- Triple digital display output: 3½-digit LED display for voltage and current; 3-digit LED display for timer; 0.39" digit height
- Two-year warranty
- Input voltage: 115/230VAC @ 50-60Hz
- Size: 13.0"W x 17.6"D x 5.9"H • Weight: 44.1 lbs.



INSTEK

SALE

| Part No. | Product No. | Description | 1 | 5 |
|----------|-------------|-------------------|----------|----------|
| 229374CX | GPT-815 | Hi-pot tester ... | \$899.95 | \$854.95 |

2MHz Function Generator

- Frequency range: 0.02Hz to 2MHz
- Waveforms: sine, triangle, square, ramp, TTL pulse, skewed sine
- Variable waveform/duty cycle symmetry
- DC offset voltage from 0 to ±10V; can be superimposed to output waveform
- Output voltage: 20Vp-p (open circuit), 10Vp-p (into 50Ω)
- Input voltage: 110V/220V 50-60Hz
- Size: 10.0"L x 8.0"W x 3.0"H • Weight: 5.4 lbs.
- One-year manufacturer's warranty



EZ DIGITAL

Includes: Cord, BNC to clip cable, fuse and manual

| Part No. | Product No. | 1 | 5 | 10 |
|----------|-------------|----------|----------|----------|
| 66069CX | FG8002 | \$189.95 | \$179.95 | \$169.95 |

3MHz Function Generator

- Square, triangle, and sine waves; TTL and CMOS pulse outputs
- Frequency: 0.3Hz to 3MHz in 7 ranges
- Output impedance: 50Ω ±10%
- CMOS output level: 4Vpp, ±1Vpp to 14.5Vpp; ±0.5Vpp adjustable
- DC offset: <-5V to >+5V into 50Ω load
- Variable controlled frequency input
- Variable DC offset control
- Signal polarity invert button • Duty cycle control
- Size: 9.6"W x 11.5"D x 3.7"H • Weight: 4.4 lbs.



WAVETEK® Mettman®

SALE

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 222594CX | FG2C | \$239.95 | \$234.95 |

5MHz Function Generator

Engineered for high reliability and user convenience.

- Waveforms: sine, square, triangle, and ramp
- 0.5 to 5MHz
- 100% DC offset
- Variable duty cycle
- Output impedance: 50Ω
- Coarse and fine tuning
- Size: 10.4"W x 11.7"D x 3.4"H
- Weight: 6.2 lbs. • Two-year warranty



BK PRECISION

| Part No. | Prod. No. | Description | 1 | 5 |
|----------|-----------|-----------------|----------|----------|
| 160469CX | BK4011A | 0.5 to 5MHz ... | \$299.95 | \$295.95 |

150kHz Sine/Square-Wave Audio Generator

Small and convenient, this audio generator can be used to test telco and audio equipment.

- 20Hz to 150kHz in 46 steps
- Low distortion R-C oscillator
- Variable output control
- Size: 5.9"L x 3.2"W x 0.8"H
- Output impedance: 600Ω
- One-year manufacturer's warranty



Includes: 9VDC battery

| Part No. | Product No. | Wt. (lbs.) | 1 | 10 |
|----------|-------------|------------|---------|---------|
| 166334CX | BK3001 | 0.7 | \$78.95 | \$75.99 |

Detailed specifications for Test Equipment –
www.Jameco.com

ExStik pH Waterproof Meters

This compact, portable pH meter provides a low-cost method for monitoring pH. Ideal for measuring chlorine in drinking water, cooling towers and waste water discharges. Waterproof design floats in water and protects the meter in wet environments. Flat surface electrodes also provide surface pH spot measurements.

- Simultaneous display of pH and temperature
- Measure pH from 0.00 to 14.00 with accuracy of ± 0.01 pH
- Automatic temperature compensation
- Measures temperature from 23°F to 194°F (-5°C to 90°C)
- Smart chip predicts pH electrode performance
- "CAL" indicator alerts user when to recalibrate
- Large 3½-digit display with bar graph
- Bar graph originates at neutral point (7.0pH)
- Tripak buffers: 6 each of 4, 7, 10 pH and 2 rinsing solutions
- Size: 6.8"L x 1.6"W x 1.4"T • Weight: 0.3 lbs.

Includes: Meter and electrode, protective sensor cap, sample cup, 4 LR44 button batteries, and neckstrap

| Part No. | Description | 1 | 5 |
|----------|-----------------------------------|---------|---------|
| 218122CX | pH waterproof meter | \$74.03 | \$67.30 |
| 218131CX | Tripak buffers for calibration .. | 24.95 | 23.69 |
| 218165CX | Carrying pouch | 18.95 | 17.95 |

Hygro + Infrared Thermometer

Combination humidity meter plus infrared thermometer features a super large backlit dual display. The primary display is user selectable for IR or humidity, while the secondary display always displays ambient temperature. The infrared thermometer has a built-in laser pointer with a 8:1 distance to target ratio.

- °C/°F
- Remote humidity sensor with 39" coiled cable
- Humidity ranges: 10.0 to 95.0% with $\pm 3.5\%$ accuracy
- Air temperature ranges: -4°F to +140°F (-20°C to +60°C) with $\pm 3^\circ\text{F}/2^\circ\text{C}$ accuracy
- IR temperature ranges: -58°F to +932°F (-50°C to +500°C); $\pm 2\%$ or $\pm 4^\circ\text{F}/2^\circ\text{C}$ accuracy
- Auto power off • Data hold and MAX
- Size: 2.8"W x 1.4"D x 5.9"H
- Weight: 0.5 lbs.

Includes: Stand, holster, probe, battery and case

| Part No. | Description | 1 | 5 |
|----------|----------------------------|----------|----------|
| 285974CX | Hygro/infrared thermometer | \$148.95 | \$141.49 |

Visit our website for more products.

www.Jameco.com

Pro-Vane Thermo-Anemometer

Remote vane rotates freely to measure airflow and temperature. Ideal for checking performance of fans, blowers, exhaust hoods and HVAC applications.

- 2.83" remote vane wheel
- Data hold function
- Super large 0.7" LCD display
- Measures air velocity as ft/min, m/s, km/h, knots
- Utilizes Type K sensor for thermometer measurements in the range of 32°F to 140°F (0°C to 60°C) with accuracy of 1.5°F (0.8°C) with 0.1° resolution
- Durable housing case and sensor made of ABS plastic with 39" cable
- Size: 6.6"L x 3.2"W x 1.2"T • Weight: 0.8 lbs.

Includes: Sensor, hard vinyl carrying case, and 9V battery

| Part No. | Description | 1 | 5 |
|----------|-------------------------|----------|----------|
| 218093CX | Thermo-anemometer | \$172.33 | \$156.66 |

Mini Thermo-Anemometer

Waterproof, pocket size with air velocity, temperature and windchill, all in one. Ideal for checking blowers, fans, exhaust hoods and balancing AC/HT ducts.

- 0°F to 122°F (-18°C to 50°C)
- Measures wind speed in ft/min, MPH, m/s, km/h, knots and Beaufort force
- Large dual display for air velocity and temperature
- Water resistant housing floats and drop tested to 6

Includes: CR2032 lithium battery and lanyard

| Part No. | Description | 1 | 5 |
|----------|-----------------------------|---------|---------|
| 218085CX | Mini thermo-anemometer | \$88.95 | \$84.49 |

2dB Sound Level Meter

Ideal instrument to measure OSHA compliance, equipment design, community sound ordinances and sound system installations.

- High & low measuring ranges: High: 75 to 130dB; Low: 35 to 90dB w/ 0.1dB res.
- A and C weighting
- Large: 0.5", 3½-digit display
- Meets ANSI and IEC 651 Type II standards
- Fast/slow response; max. hold with reset button
- Built in calibration check
- Utilizes a 0.49" condenser microphone
- Size: 9.5"L x 2.7"W x 1.0"T • Weight: 0.5 lbs.

Includes: Hard vinyl case and 9V battery

| Part No. | Description | 1 | 5 |
|----------|-----------------------------|----------|----------|
| 218114CX | Digital decibel sound meter | \$221.85 | \$201.68 |

Electromagnetic Radiation Meter

Electromagnetic radiation is all around us, some of it good, some bad; but there's never been an easier, more portable device to detect and measure it until the ZAP Checker.

Now you can measure your microwave oven's emissions or take engineering measurements of HF, VHF, or UHF transmissions. ZAP Checker does it all. Its portability, multiple settings, ultra-high sensitivity and expanded bandwidth allows you to search out EMR whenever and wherever needed.

- 10MHz to 4.5GHz

| Part No. | Description | 1 | 10 |
|----------|-------------------|----------|----------|
| 217808CX | ZAP checker | \$129.95 | \$114.95 |

Laser and Contact Tachometer

This combination non-contact and contact laser tachometer is ideal for measuring the revolving speed of fans, motors, gears, pumps, conveyors, and elevators.

- Photo tachometer range: 10 to 99,999 RPM with accuracy of $\pm 0.05\% + 1$ digit
- Contact tachometer range: 0.5 to 19,999 RPM with accuracy of $\pm 0.05\% + 1$ digit
- Measures from up to 6.5 feet from the target for improved safety and accessibility
- Memory stores last, maximum and minimum readings
- Display characters reverse direction for measurement type selected
- Large 0.4" (5-digit) LCD display
- Weight: 0.7 lbs.

Includes: 4-AA batteries, tips and wheel for RPM or linear surface speed, reflective tape, & carrying case

| Part No. | Description | 1 | 5 |
|----------|-----------------------------|----------|----------|
| 218106CX | Laser contact tachometer .. | \$248.56 | \$225.97 |

Digital Light Meter

- Measures in Lux and footcandle ranges
- Range: Lux - 0 - 50,000 Lux (3 ranges); footcandle - 0 - 5,000 Fc (3 ranges)
- Analog output connectors for external recording
- Separate light sensor for optimum location sampling
- 0.5" digit height
- Dimensions (sensor probe): 3.2"L x 2.2"W x 0.5"H
- Weight: 0.9 lbs. • One-year warranty

| Part No. | Description | 1 | 10 |
|----------|---------------------------|---------|---------|
| 131764CX | Digital light meter | \$99.95 | \$89.95 |

Even lower OEM pricing for larger orders!

Corporate Customers

Call 1-800-831-4242 for details today.

Temperature/Humidity Meter with Min/Max Memory

- Displays (%) relative humidity and temperature (°C/°F) simultaneously
- Min./Max. memory on both relative humidity and temperature with reset function
- Temperature range: 14°F to 140°F (-10°C to 60°C);
- Humidity range: 10% to 99%
- 1" high readout
- Size: 4.3"L x 3.9"W x 0.8"Thick



EXTECH INSTRUMENTS

Includes: Built-in tilt stand, AAA battery, and wall mounting bracket

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------------|---------|---------|---------|
| 198045CX | Temp./humidity meter | \$38.95 | \$34.95 | \$32.95 |

Rapitest Moisture Test Meter

This efficient and cost-effective meter lets you ferret out potential water damage, and check water moisture on surfaces. Dual scales (relative and percentage moisture) provide quick readings on a clear analog display. A 3-foot coiled cable makes it easy to get the contact probes into hard-to-reach places. Locate leaks, detect potential mildew problems and eliminate wetness with this versatile handheld tool.



- Size: 4.6"L x 2.8"W x 1.7"Thick

| Part No. | Description | Price |
|----------|----------------------------|---------|
| 239361CX | Temperature/humidity meter | \$34.99 |

Water Resistant Multi-Function Sports Timer/Stop Watch

- Time calendar display: hours, minutes, seconds, month, date, and day of the week
- Stopwatch accuracy: 1/100 of a second during the first 30 minutes, 1 second after 24 hours
- Time display mode: 12/24 hour mode (selectable)
- Alarm and snooze function
- Size: 2.2"W x 2.7"H x 0.8"Thick • Weight: 0.1 lbs.

New Lower Prices



| Part No. | Description | Price |
|----------|-------------------------|--------|
| 239652CX | Sports timer/stop watch | \$7.49 |

LCD Stopwatch with Alarm and Calendar

- Water resistant housing, complete with 39" neck strap and battery
- Large LCD display
- Accurately times a two-person competition
- Displays accumulated elapsed time and split-time measurements
- Timing capacity of 23 hours, 59 minutes, and 59 seconds
- 12/24 hour clock operation with settable hour chime, wake and snooze alarm
- Accurate to ±3 seconds/day
- Size: 2.3"W x 2.8"H x 0.5"Thick



EXTECH INSTRUMENTS

| Part No. | Description | 1 | 10 |
|----------|--------------------|---------|---------|
| 154739CX | Stopwatch w/ alarm | \$17.95 | \$16.95 |

Pocket IR Thermometer with Laser Pointer

The pocket IR thermometer measures the surface temperature of objects which are difficult to reach or unsafe to contact. It also measures hot spots in electrical panels and equipment. In-process temperature measurements. With a 6:1 ratio field of view and built-in laser for improved aim, it covers 90% of surface applications for temperature measurement.

- Temperature range: -58°F to 518°F
- Built-in laser pointer to improve aim
- °F/°C switchable
- Fixed emissivity (0.95) covers 90% of surface applications
- Visual overrange indicator
- 6:1 field of view • Pocket size meter
- Data hold and max hold
- Size: 3.8"L x 2.0"W x 0.9"D

Includes: 2 AA batteries

EXTECH INSTRUMENTS

Best Seller!



| Part No. | Description | Price |
|----------|-----------------------|---------|
| 219361CX | Pocket IR thermometer | \$59.99 |

Wireless Weather Station

This indoor/outdoor wireless thermometer features a graphical weather forecaster, lighted alarm clock, day/date calendar, and audible temperature alarm. It's even a pool and pond thermometer. The outdoor sensor transmits up to 100' through walls. Slide the sensor out of its bracket, plug in the 10' waterproof probe, and check the temperature of your pool or pond. A flashing storm alert warns of severe weather ahead. Programmable audible high/low temperature alerts to help prevent potential catastrophes.

- Readings displayed in °C or °F
- Base uses 2 AA batteries (included).
- Remote uses 2 AAA batteries (included).



Weather Station



Remote

| Part No. | Description | Price |
|----------|--------------------------|---------|
| 227117CX | Wireless weather station | \$49.95 |

Non-Contact Infrared Thermometers w/ Laser Pointer

- Built-in laser pointer identifies target area
- Field of view: 6:1 (6" distance measures 1" target)
- Automatic data hold when trigger released and auto power off
- Fixed 0.95 emissivity covers 90% of surface application

Includes: 9V battery

EXTECH INSTRUMENTS

- Temperature range: -4°F to 500°F (-20°C to 260°C)
- Basic accuracy: ±3% of reading
- Backlighting illuminates display for taking measurements at night or in areas with low background light levels
- Size: 6.7"L x 1.7"W x 1.6"D
- Weight: 0.3 lbs.



236451CX



211588CX

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 236451CX | 42500 | \$79.95 | \$74.95 |
| 211588CX | 42529 | 88.95 | 84.50 |

See pages 157 - 159 for Batteries.

Waterproof Thermometer



- 2.75" stainless steel stem
- Digital display of 0.1° resolution
- °C/°F switchable ranges -40°F to 392°F (-40°C to 200°C)
- Max./min. recall of high and low temperature
- HOLD and AUTO-OFF features
- Size: 5.9"L x 0.8"W x 0.7" • Weight: 0.1 lbs.



Waterproof housing allows thermometer to be completely submerged in water

SALE

Includes: LR44 button battery and protective cover

| Part No. | Description | 1 | 5 |
|----------|------------------------|---------|---------|
| 218077CX | Waterproof thermometer | \$16.95 | \$17.10 |

Jameco's Low-Price Guarantee

We'll match the print advertised price of any like product.

It's that simple!



Test Leads, Plugs and Binding Posts

Color Code Legend
New Sale Qty. Save

Mini-Clip to Banana Test Cables

- Plunger-type action
- Available in black or red
- Positive connection that won't disconnect from components
- Banana plug connection on opposite end
- Length: 3.5' • 20 AWG insulated wire



21864CX

| Part No. | Description | 1 | 10 | 100 |
|----------|------------------------|--------|--------|--------|
| 21856CX | Black test cable | \$3.95 | \$3.55 | \$2.99 |
| 21864CX | Red test cable | 3.95 | 3.49 | 2.99 |

Pomona® Stackable Banana Test Lead Cables



159898CX

159901CX

159919CX

- 5000V @ 15A • 55°C max.
- 159898CX: Two 36" leads, mini clip w/ banana
- 45VAC @ 5A max.; beryllium copper contact and glass filled insulation
- 159901CX: Two 24" leads 159919CX: Two 36" leads

| Part No. | Prod. No. | Description | 1 | 10 | 25 |
|----------|-----------|------------------|--------|--------|--------|
| 159898CX | 3782-36 | Mini w/ banana | \$7.95 | \$7.19 | \$6.59 |
| 159901CX | B-24-02 | Patch cord | 9.95 | 8.95 | 7.95 |
| 159919CX | B-36-02 | Patch cord | 9.95 | 8.95 | 7.95 |

Banana-to-Banana Test Leads

- Stackable
- Color coded; 2 each red, yellow, blue, black, white • 9.8" long
- 10 per package
- 18 AWG wire



| Part No. | Description | 1 | 10 | 25 |
|----------|------------------|---------|---------|---------|
| 77841CX | Test leads | \$22.95 | \$20.69 | \$18.59 |

Double-Banana Plug to Alligator Clips Test Cable

- Red & black rubber boot
- 4" lead wire • Length: 3'



| Part No. | Description | 1 | 10 | 50 | 100 |
|----------|------------------|--------|--------|--------|--------|
| 107422CX | Test cable | \$3.95 | \$3.49 | \$2.95 | \$2.49 |

Alligator Clip Leads

- 24 AWG wire
- Color-coded, 15" long
- Insulated alligator clip on each end
- 10 per pkg. in assorted colors



| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|-----------------|--------|--------|--------|--------|
| 10444CX | Alligator leads | \$4.39 | \$3.95 | \$3.56 | \$3.20 |

BNC to Alligator Clip Test Cable

Permits BNC assembly to be used as a test cable.

- Upper connection: two alligator clips – red 5.5" 22AWG wire; black 9" 22AWG wire
- Lower connection: 23" RG/58U cable with BNC connector



| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|-----------------|--------|--------|--------|--------|
| 11383CX | BNC cable | \$3.49 | \$2.49 | \$2.25 | \$2.05 |

Insulated Alligator Clips

- Color-coded
- Insulated barrel
- Jaw opening .375"-0.5"
- Accepts standard banana connector
- Solder strap and pre-drilled hole for 6-32 self threading screw • Size: 2.3"L x 0.5"W



Includes: One red and one black clip

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|-----------------------|--------|--------|--------|--------|
| 70990CX | Alligator clips | \$3.39 | \$3.36 | \$3.33 | \$3.30 |

1 1/4" Banana Plugs

- Set-screw connection
- Standard banana spring plug
- Additional 6-32 threaded hole for connection reliability
- .1875" lead opening
- Insulating sleeve is threaded to banana plug body
- Size: 1.6"L x 0.4"Dia.



Includes: One red and one black plug

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|------------------|--------|--------|--------|--------|
| 72194CX | Banana plugs ... | \$1.59 | \$1.49 | \$1.25 | \$1.09 |

2 1/4" Banana Plugs

- Nine rib spring plug
- Will accept up to 0.1" dia. wire
- Set-screw connection
- Each plug equipped with hole for interconnection
- Size: 2.3"L x 0.3"W
- Insulating sleeve fits snugly over copper post



Includes: One red and one black connector

| Part No. | Description | 1 | 10 | 100 |
|----------|--------------------|--------|--------|--------|
| 137525CX | Banana plugs | \$2.95 | \$2.12 | \$1.84 |

Solderless Banana Plug Sets



159863CX

159855CX

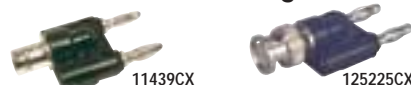
159927CX

- Nickel-plated
- Set screws secure leads
- ABS insulation • 5000VDC @ 15A • 50°C max.
- Color: 1 red and 1 black per set

- 159863CX: Solderless with safety collar & set screw
- 159855CX: Solderless with set screw
- 159927CX: Solderless double banana plug w/ wire guide

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------------|--------|--------|--------|
| 159863CX | 1825-02 set | \$2.45 | \$2.19 | \$1.95 |
| 159855CX | 1325-02 set | 3.29 | 2.99 | 2.69 |
| 159927CX | MDP-02 set | 4.49 | 4.05 | 3.65 |

BNC to Standard Double Banana Plugs



11439CX

125225CX

Permits BNC cables to be used with equipment having banana jacks. Lower connection: BNC; upper connection: double banana plug on .750" centers. Cross holes .166" diameter in body provide side stack-up connections.

| Part No. | Description | 1 | 10 | 100 |
|----------|--------------------------|--------|--------|--------|
| 11439CX | BNC banana plug (F) | \$4.95 | \$4.49 | \$3.99 |
| 125225CX | BNC banana plug (M) | 5.49 | 4.95 | 4.45 |

Double Banana Plugs

- Dual gold-plated female banana plugs
- Stackable

SALE

125217CX



| Part No. | Description | 1 | 10 | 100 |
|----------|-----------------------|--------|--------|--------|
| 125209CX | Blk banana conn. | \$2.65 | \$2.39 | \$2.15 |
| 125217CX | Red banana conn. | 1.99 | 1.79 | 1.61 |

1" Screw-Type Binding Posts

- For both wire and standard banana
- 0.16" hole for banana test leads
- Chassis mount with lock washer and nut
- Solder tab hole: 0.06"Dia.
- Size: 1.0"L x 0.5"Dia.



Requires: 0.32" mounting hole

Includes: One red and one black insulated post

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|-------------------|--------|--------|--------|--------|
| 71239CX | Binding posts (2) | \$0.99 | \$0.85 | \$0.69 | \$0.59 |

1 3/4" Screw/Solder Binding Posts

- For both wire and standard banana
- 0.16" hole for banana test leads
- Solder post: 0.0625"Dia.
- Chassis mounting
- Size: 1.8"L x 0.5"Dia.



Includes: One red and one black insulated post

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|-------------------|--------|--------|--------|--------|
| 77690CX | Binding posts (2) | \$1.09 | \$0.95 | \$0.79 | \$0.69 |

Panel Mount Banana Jacks 1/4" – 32 Thread

Mounts in panels ranging in thickness from 0.063" to 0.375".

- Plating: bright tin
- Material: brass
- Insulation: polycarbonate
- 10 pieces per pack



| Part No. | Cross Ref. No. | Color | 1 | 10 | 100 |
|----------|----------------|-----------|--------|--------|--------|
| 256778CX | R1-17-BLK | Black ... | \$7.79 | \$7.49 | \$7.31 |
| 263863CX | R1-17-RED | Red | 7.79 | 7.49 | 7.31 |

Double Binding Posts – Dual Banana

- Red/Black design
- Screw-mount
- 0.72" between posts • Size: 1.6"L x 1.4"W



| Part No. | Description | 1 | 10 | 100 |
|----------|--------------------------|--------|--------|--------|
| 125196CX | Screw mount bind post .. | \$3.95 | \$3.45 | \$3.19 |

Single Binding Post to BNC Male

- Binding post with captive thumb nut
- Accepts standard banana plugs
- Operating voltage: 500 VRMS
- Brass nickel plated

See page 85 for BNC Connectors



| Part No. | Description | 1 | 10 | 100 |
|----------|--------------------------|--------|--------|--------|
| 100600CX | Red binding post | \$1.35 | \$1.07 | \$0.85 |
| 100618CX | Black binding post | 1.35 | 1.07 | .85 |

BNC to Double Binding Posts – Dual Banana

- Red/black design



| Part No. | Description | 1 | 10 | 100 |
|----------|------------------|--------|--------|--------|
| 125233CX | BNC-female | \$4.95 | \$4.49 | \$4.05 |
| 99354CX | BNC-male | 5.29 | 4.76 | 4.28 |

Protected Banana Style Multimeter Test Probes

- Threaded/pointed test tip
- 18 AWG wire • 42" long
- Black and red
- 2 per package

| Part No. | Description | 1 | 10 | 25 |
|----------|------------------------|--------|--------|--------|
| 77737CX | Protected probes | \$6.49 | \$5.85 | \$5.25 |

Standard Banana Style Multimeter Test Probes

- Black and red
- 18 AWG wire
- 42" long
- 2 per package

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------------|--------|--------|--------|
| 77745CX | Std. banana probes .. | \$7.69 | \$6.95 | \$6.25 |

PROBE MASTER® Probe Test Leads

- 23K gold tips
- Silicon wire
- 1000V rated
- Length: 3'3"

174625CX Includes:
10 plunger type tips

212222CX Includes:
10 pieces; screw-on
alligator clips, spade
lugs and spring hooks

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------------|---------|---------|---------|
| 174625CX | Micro tip test leads | \$29.85 | \$28.35 | \$26.95 |
| 212222CX | Softie test leads | 23.85 | 22.65 | 21.55 |

PROBE MASTER® Probe Kits

- Rating: 1000V 10A
- Gold tips and contacts
- 212231CX: Universal probe kit includes leads with shrouded right angle banana plug, probes, sprung hook probes, alligator clips and spade lugs

212249CX: Electronic deluxe probe kit includes same as P/N 212231, plus extender probes, minigator leads, .025" wire wrap leads, pico hooks and pincer hooks

| Part No. | Description | 1 | 10 |
|----------|-------------------------------|---------|---------|
| 212231CX | Universal probe kit | \$32.85 | \$31.19 |
| 212249CX | Elect. deluxe probe kit | 69.85 | 66.35 |

Pomona® Replacement Probe Test Lead Set

- Set of two PVC 48" insulated leads, probe to banana plug
- Fits all DMMs
- Right-angle multimeter connectors

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 155951CX | 5519A | \$12.95 | \$11.49 | \$10.49 |

Breadboard-Pin to Breadboard-Pin Test Leads

- 4 each red, yellow, blue, black, white
- 5.9" long
- 20 AWG wire
- 20 per package

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------------|---------|---------|---------|
| 77825CX | Breadboard pin leads | \$12.95 | \$11.69 | \$10.49 |

Pomona® Basic Electronic DMM Test Lead Kit

Kit contains 2 each (black/red):

- Test probes with silicone insulated lead
- Slide-on extended tips & alligator clips
- Supplied in a reusable plastic case
- 48" leads
- Fits most equipment with banana jacks

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 155942CX | 5672A | \$20.75 | \$19.75 | \$18.95 |

Universal Test Lead Kit

Includes: 3' black/red cables, 4.5" black/red insulated test probes, 0.8" needle probes, spade terminals, 2 sets of 4 pieces each red/black insulated alligator clips and banana plug

| Part No. | Description | 1 | 10 | 100 |
|----------|---------------------|--------|--------|--------|
| 168516CX | Universal kit | \$8.95 | \$7.95 | \$6.95 |

Micro Test Clip

- One piece per package

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|----------------------|--------|--------|--------|--------|
| 153162CX | 1.6" micro test clip | \$0.69 | \$0.54 | \$0.35 | \$0.26 |

Mini Test Clips

- Two lengths

Includes: One black and one red hooked probe clip

| Part No. | Description | 1 | 10 | 100 |
|----------|----------------------------|--------|--------|--------|
| 114809CX | 1.75" mini test clips | \$1.89 | \$1.49 | \$1.35 |
| 114817CX | 3.5" mini test clips | 1.75 | 1.55 | 1.39 |

Insulation-Piercing Test Clips with Banana Jack

Makes contact with insulated wires without cutting stripping. Pierces insulation on wires from 22 to 14 AWG.

- Op. V/A: 30VAC or 60VDC/1A max.

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------------|---------|---------|---------|
| 217453CX | Piercing clips | \$30.75 | \$29.25 | \$27.75 |

Mini-Clip Test Leads

These spring loaded mini-clips hook easily to IC pins for testing.

- Set of five: red, blue, green, black and yellow
- 14"L; clips on both ends
- 26 AWG to 300V CSA/UL approved wire

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|-----------------|---------|---------|--------|--------|
| 135298CX | Mini test leads | \$11.49 | \$10.39 | \$9.29 | \$8.39 |

Pomona® 11"L Test Lead Holders

- 155985CX: Max cable dia.: 0.450"
- 155977CX: Max cable dia.: 0.320"
- 155969CX: Max cable dia.: 0.210"

| Part No. | Prod. No. | Slots | Color | 1 | 10 | 25 |
|----------|-----------|-------|-------------|--------|--------|--------|
| 155985CX | 2708B | 9 | Blue | \$9.95 | \$9.45 | \$8.95 |
| 155977CX | 4408 | 10 | Black | 9.95 | 9.45 | 8.95 |
| 155969CX | 1508 | 14 | Orange ... | 9.95 | 9.45 | 8.95 |

BNC Female Connector with 20AWG Lead Wires

Solder the 20AWG wires onto your protoboard, plug the BNC female connector on to your test equipment and you have an instant testing board for varied applications.

- BNC female connector
- 7" 20AWG lead wires

| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 100 |
|----------|---------------------|--------|--------|--------|
| 256831CX | CBB-069 | \$4.59 | \$4.39 | \$4.19 |

Pomona® Minigrabber® Test Clip Patch Cord Kits

- One each of 10 colors: black, brown, red, orange, yellow, green, blue, violet, gray and white
- 24" leads; clips on both ends

| Part No. | Prod. No. | Description | 1 | 10 |
|----------|-----------|----------------------|---------|---------|
| 156494CX | 5523 | Patch cord (hook) | \$34.95 | \$31.49 |
| 156507CX | 5521 | SMD cord (jaws) | 56.75 | 53.89 |

BNC to Clip Test Cables



BNC connectors are designed for signal frequencies into the gigahertz range, making them ideal for communications, video & test equipment.

- Micro-clip or mini-clip
- Length: 39"

| Part No. | Description | 1 | 10 | 50 | 100 |
|----------|----------------------|--------|--------|--------|--------|
| 11421CX | Micro-clip RG174 | \$3.99 | \$3.19 | \$2.89 | \$2.59 |
| 11463CX | Mini-clip RG174 | 4.39 | 3.99 | 3.59 | 3.19 |

Pomona® BNC to Minigrabber® Test Clips

- RG 174/U, .100" O.D.
- Rating: 300 V_{RMS} max., +50°C (+122°F) max.
- Strain relief: PVC molded directly to connector
- Length: 36"

| Part No. | Product No. | 1 | 10 |
|----------|-----------------|---------|---------|
| 176954CX | 5187-K-36 | \$21.95 | \$19.95 |

Pomona® BNC Male w/ Molded Strain Relief to Minigator® Test Clips

- RG 58C/U, .195" O.D.
- Rating: 45 V_{RMS} max., +50°C (+122°F) max.
- Jaws open to .187" max.
- Length: 36"

| Part No. | Product No. | 1 | 10 |
|----------|-----------------|---------|---------|
| 176971CX | 4532-C-36 | \$16.95 | \$15.26 |

Pomona® BNC Cables

- RG58 C/U 50Ω cable
- BNC male connectors
- Molded strain relief
- Length: P/N 159871CX: 36" P/N 159880CX: 60"

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-----------------|---------|---------|---------|
| 159871CX | 2249-C-36 | \$15.95 | \$14.39 | \$12.95 |
| 159880CX | 2249-C-60 | 15.95 | 15.15 | 14.39 |

Claw Clips and Alligator Clips



Jameco offers different types of clips for different applications. Claw clips with teeth on three sides of the jaw for a better grip, and screw terminal connections. Steel alligator clips with either solder/crimp connection or barrel/screw connection.

• Prepackaged: order in increments of 2

| Part No. | Description | Size | 2 | 4 | 10 |
|----------|---------------------------------------|---------------|-------|-------|-------|
| 248920CX | Mini-alligator clip solder/crimp | 1.2"L x 0.3"W | \$.28 | \$.25 | \$.23 |
| 248954CX | Red insulator for 248920CX | — | .18 | .16 | .14 |
| 248946CX | Black insulator for 248920CX | — | .18 | .16 | .14 |
| 256524CX | Alligator clip, barrel/screw | 1.9"L x 0.2"W | .45 | .38 | .35 |
| 248938CX | Alligator clip, solder/crimp | 1.6"L x 0.3"W | .52 | .48 | .42 |
| 248971CX | Red insulator for 248938CX/256524CX | — | .21 | .19 | .17 |
| 248962CX | Black insulator for 248938CX/256524CX | — | .21 | .19 | .17 |
| 248989CX | Claw clip 10A, screw terminal | 2.1"L x 0.4"W | .45 | .44 | .40 |
| 249009CX | Claw clip 20A, screw terminal | 2.5"L x 0.5"W | .55 | .50 | .45 |
| 248997CX | Claw clip 30A, screw terminal | 2.8"L x 0.6"W | .69 | .62 | .55 |

Mini DC/AC 2000-Count Clamp Meter/Multimeter

- Bright 1/2" LCD display with DATA HOLD
- 0.5" digit height
- Compatible w/ P/N 162325CX, below
- Size: 7.1"L x 1.9"W x 1.4"H
- Weight: 0.9 lbs.
- One-year warranty



| | | |
|---------------------|-----------------------|------------|
| ACA* | 20A, 200A | ±1.2% + 5d |
| DCA | 200A | ±1.2% + 5d |
| ACV* | 500V | ±1.0% + 2d |
| DCV | 200V | ±0.8% + 1d |
| Resistance | 200kΩ | ±1.2% + 1d |
| *Frequency Response | 40-400Hz | |
| Zero Adjust | External knob for DCA | |

Requires: 9V battery not included (P/N 151095CX, pg 157)

Includes: Test leads, manual and case

| Part No. | Description | 1 | 10 |
|----------|-----------------------------|----------|----------|
| 115756CX | Mini DC/AC clamp meter | \$119.95 | \$107.95 |

17MHz Logic Probe

- Max input freq.: 17MHz
- Minimum pulse width: 30ns
- Input impedance: 1MΩ
- Pulse flash time: 500ms
- Audible tones for high and low
- Power supply protection: ±20V
- TTL threshold: Lo = 0.8V ±0.2V, Hi = 2.3V ±0.2V
- CMOS threshold: Lo = 30% VCC, Hi = 70% VCC
- Size: 7.7"L x 1.0"W x 0.6"H



| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------|---------|---------|---------|
| 149930CX | Logic probe | \$29.95 | \$26.99 | \$24.29 |

Logic Pulser

- Compatible with TTL, DTL and CMOS ICs
- 1MΩ sync input impedance
- "One shot" or continuous 5Hz train pulse
- Pulse repetition rate: 0.5pps/400pps
- Pulse width output at 100mA load: 10μs
- Pulse mode output current: 10mA
- Square wave current output: 5mA
- Size: 7.8"L x 1.0"W x 0.6"H



SALE

| Part No. | Description | 1 | 10 | 25 |
|----------|--------------------|---------|---------|---------|
| 24601CX | Logic pulser | \$18.95 | \$17.06 | \$15.35 |

WAVETEK Meterman 5-Function 4000-Count Clamp Meter/Multimeter

- 4000-count display with bar graph
- Resolution: 0.1mV maximum
- DC/AC voltage range: 600V
- AC current range: 400A • Auto off
- Resistance range: 400Ω • Data hold
- Continuity test • One-year warranty
- 1.0" max conductor size • Autoranging
- Compatible with P/N 162325CX
- AC line separator, below
- Size: 11.4"L x 6.6"W x 2.1"D



| Part No. | Model No. | 1 | 10 |
|----------|-------------|---------|---------|
| 192583CX | AC40A | \$78.95 | \$74.99 |

MASTECH 15A AC Line Separator for AC Current Clamp Meters

- Max. overload: 250VAC@15A
- X1 and X10 clamp areas
- Convenient 0.1"Dia. meter tip test points for neutral/earth/line
- Socket compatible with US & European connectors
- Size: 6.0"L x 1.9"W x 1.4"T • One-year warranty



| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------------|---------|--------|--------|
| 162325CX | 3-prong US-type plug .. | \$10.95 | \$9.95 | \$8.95 |

50mV/50A Current Shunt

- Current ranges: 0 to 50A
- Accuracy: 0.8% ±0.2mV
- Output ratio: 1mV/1A
- Max. current: 100A • Size: 5.3"L x 1.2"W x 1.4"H



| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------|---------|---------|---------|
| 162309CX | Current shunt | \$24.95 | \$22.49 | \$19.95 |

PC Cable-Check™ Tester

Tests standard computer cables for open, shorted and cross-connected wires. PC Cable-Check™ also tests any combination of D-sub 9-pin, D-sub 15-pin, D-sub 25-pin, Centronics 36-pin printer, plus RJ11, and RJ45 telephone plugs. A separate section to check USB-A to USB-B cables, as well as a separate section to check female BNC to female BNC cables.

Includes: Battery and manual



Paladin

| Part No. | Description | 1 | 10 |
|----------|-----------------------|----------|----------|
| 123916CX | PC cable-check™ | \$169.95 | \$152.95 |

RS-232 Mini-Tester with Status LEDs

Tests any RS-232 (DB25) interface and helps to identify equipment that has failed. Seven bicolor LEDs indicate the status of TD, RD, RTS, CTS, DSR, CD and DTR. LEDs indicate positive (red) and negative (green). No extra power is required. Connectors: male to female DB25.



| Part No. | Description | 1 | 10 | 100 |
|----------|-------------------|---------|---------|--------|
| 26729CX | Mini-tester | \$11.95 | \$10.76 | \$9.68 |

Miniature RS-232 Breakout Box for Quick Design Changes

Design new interfaces or modify old ones quickly and easily. Completely self-contained. Connectors: male to female DB25.

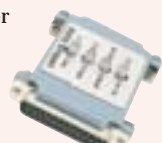
Includes: 25 each 22 AWG wire jumpers and machine tool sockets



| Part No. | Description | 1 | 10 | 100 |
|----------|--------------------|--------|--------|--------|
| 11181CX | Breakout box | \$8.95 | \$7.95 | \$6.95 |

RS-232 Loopback Tester

The tester acts as a data verifier by sending data back to the transmission device. Used for diagnostic testing of RS-232 circuits. 4 LEDs monitor lines 2 to 3, 4 to 5, 6 to 20, and 15 to 17. Connectors: male to female DB25.



| Part No. | Description | 1 | 10 | 100 |
|----------|-----------------------|--------|--------|--------|
| 22728CX | Loopback tester | \$6.95 | \$5.95 | \$4.45 |

RS-232 Line Status Tester

Identifies simple interface problems which you can repair yourself. Targets the status of lines 2, 3, 4, 5, 6, 8, 11, 19, and 20. Connectors: male to female DB25.



| Part No. | Description | 1 | 10 | 100 |
|----------|-------------------------|--------|--------|--------|
| 14285CX | Check line tester | \$8.95 | \$8.09 | \$7.25 |

RS-232 Signal Adapter/Splitter

- Metal connectors: DB25 female and male, and DB9 male
- Gold-plated contacts



| Part No. | Description | 1 | 10 | 100 |
|----------|-------------------------|--------|--------|--------|
| 105195CX | Tri-port serial adapter | \$7.95 | \$6.95 | \$5.95 |

Flexible Multilink RS-232 Tester & Breakout Box

Visually indicates the status of lines 2, 3, 4, 5, 6, 8, 20, and 22 on the DTE and DCE sides. Provides signal status at a glance.

Complete cable "breakout" & reconfiguration. Connectors: DB25 male & DB25 female.

- Cable length: 4" • Size: 3.5"L x 3.3"W x 1.0"H

Includes: handy carrying case, 10 jumper wires and a device wiring chart

| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------|---------|---------|---------|
| 25945CX | Tester/breakout box | \$22.95 | \$19.95 | \$17.95 |

Protective Coiled Grounding Wrist Strap

- Comfortable, adjustable Velcro wrist strap
- The coiled cord has banana plug and alligator clips
- Extended cord: 9' long
- Color: black



Includes: 1MΩ resistor for added safety

| Part No. | Description | 1 | 10 | 100 |
|----------|-------------------------|--------|--------|--------|
| 34551CX | Anti-static strap | \$6.49 | \$5.85 | \$5.29 |

Anti-Static Heel Strap

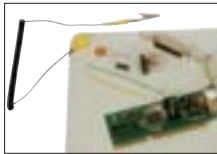
- Discharges static without restricting your mobility
- Ideal for anyone handling static sensitive devices
- Ground strap: 15.5"L



| Part No. | Description | 1 | 10 | 100 |
|----------|------------------|--------|--------|--------|
| 100327CX | Heel strap | \$5.49 | \$4.99 | \$4.55 |

Anti-Static Work Mats

Make your work environment safe from static discharge! These mats are made of attractive semi-conductive vinyl that provide adequate discharging, yet will not short leads or pins.



| Part No. | Dimensions | Wt. (lbs.) | 1 | 10 | 100 |
|----------|---------------|------------|---------|---------|---------|
| 10575CX | 11.3" x 22" | 0.7 | \$9.95 | \$8.96 | \$8.06 |
| 10583CX | 19.5" x 23.5" | 1.1 | \$13.95 | \$12.59 | \$11.35 |
| 236540CX | 23.5" x 27.5" | 1.4 | \$24.95 | \$22.49 | \$20.19 |

Conductive Anti-Static Foam and Bags

Don't get zapped!

Protect your investment with these inexpensive bags and ensure a safe work area with our conductive anti-static foam.

- For safe storage of static sensitive devices

13864CX: 24.0"L x 12.0"W x 0.25"H

* Prepackaged: order in increments of 5



| Part No. | Description | 1 | 5 |
|----------|---------------------------------|--------|--------|
| 13864CX | Anti-static foam | \$9.29 | \$8.35 |
| 78668CX | 4" x 6" anti-static bags | * | .16 |
| 78650CX | 8" x 10" anti-static bags | .79 | .71 |

Anti-Static Plastic DIP IC Storage Tubes and Rubber Rail Stops

29516CX: Thin tube (rail) fits 8, 14, 16, 18, 20 and 22-pin integrated circuits. • Length: 23.75"

29524CX: Wide tube (rail) fits 24, 28, 32, 40 and 48-pin integrated circuits. • Length: 20"

29583CX: Rubber stops used to plug plastic rail ends
ICs not included



* Prepackaged: order in increments of 10 or 100

| Part No. | Mfr. Cross Ref. | Description | 1 | 10 | 100 |
|----------|-----------------|------------------|------------------|--------|--------|
| 29516CX | RIC20 | Thin rail | \$3.49 \$.39 | \$.35 | \$.32 |
| 29524CX | RIC220 | Wide rail | .39 | .25 | .15 |
| 29583CX | RRS | Rubber stop | * | .07 | .06 |



Fume Extractor and Filters

Absorbs noxious lead fumes using activated-carbon filter and a high-efficiency fan

- Operate continuously providing filtered air
- Air flow: 115 CFM
- Compact size allows use on work bench w/ minimum space
- 120VAC, 60Hz, 22 watt
- On/off power switch
- Aerodynamic hood design for effective removal of solder fumes
- Noise: 49dB fan • Fuse protected
- Static ground jack • One-year warranty
- Removable carbon-impregnated filter
- Black anodized aluminum case
- Size: 6.4"W x 4.6"D x 7.9"H • Weight: 4.6 lbs.



Includes: Detachable power cord

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------------|---------|---------|---------|
| 120150CX | Fume extractor | \$58.95 | \$52.95 | \$47.79 |
| 127183CX | Replace. filters (2/pk) | 12.95 | 11.66 | 10.49 |

Combination 42-Watt Soldering Station and Fume Extractor

- Power consumption: 42W @ 650°F (soldering iron)
- Adjustable knob for temperature control: 500° to 800°F
- Stability @ idle: ±9°F
- Maximum air volume: 95/115CFM
- Electronic zero-voltage switching
- LED indicator for pilot light & lighted on-off switch
- Input voltage: 100-120VAC @ 60Hz
- Size: 6.4"W x 7.8"H x 4.7"D • Weight: 5.2 lbs.



Includes: Soldering iron, iron holder, sponge, carbon activated filter, power cord and manual

| Part No. | Product No. | 1 | 10 |
|----------|--------------|---------|---------|
| 183169CX | 456DLX | \$89.95 | \$86.29 |

Electric & Manual Desolder Pumps

- Easily disassembled for cleaning
- Replacement tips available

19254CX: • UL listed
• One-hand operation
• Size: 10.5"L x 1.0"Dia.

19166CX: Size: 7.8"L x 0.8"Dia.

| Part No. | Description | 1 | 10 |
|----------|------------------------------|---------|---------|
| 19254CX | Electric desolder pump | \$26.95 | \$23.95 |
| 19166CX | Manual desolder pump | 4.95 | 4.49 |
| 19262CX | 1 tip for 19254CX | 4.95 | 4.49 |
| 22091CX | 2 tips for 19166CX | 4.49 | 3.95 |

Vacuum Pen Tools



- ESD safe body
- Picks up components with weight of 1.1 lbs. or less
- 207239CX:** 4 tips and cups
- 207247CX:** Aluminum body; 6 tips and cups

| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------|---------|---------|---------|
| 207239CX | Handivac tool | \$19.99 | \$17.99 | \$16.19 |
| 207247CX | Pen vac tool | 37.95 | 34.25 | 30.49 |

300-Watt Solder Pot

Temperature Regulated between 420 – 450°C

- HI/LO switch selectable for temperature
- 2 conductor power cord: 5' 9" long
- Holds up to 1 bar of P/N 170464CX or 176057CX, below
- Input voltage: 110VAC @ 2.7A; 50-60Hz
- Size: (unit) 4.8"H x 5.5" Dia. (base)
- Size: (tub) 2.4"Dia. x 1.6"D
- Weight: 5.9 lbs. • One-year warranty



| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------|---------|---------|---------|
| 160303CX | 300W solder pot ... | \$64.95 | \$58.49 | \$52.65 |

600-Watt Solder Pot

Temperature Adjustable

- 2-wire power cord (5'5")
- Temperature: 0°C to 500°C
- Self regulating temperature
- On-off power switch and LED indicator for heat
- Input voltage: 110VAC @ 5.5A
- Holds up to 3 bars of P/N 170464CX or 176057CX, below
- Size (unit): 6.8"L x 5.5"W x 2.8"H
- Size (tub): 3.9"L x 1.6"D • Weight: 7.4 lbs.



SALE

Includes: Skimmer and removable dross tray

| Part No. | Description | 1 | 10 |
|----------|-----------------------|----------|----------|
| 172275CX | 600W solder pot | \$179.95 | \$170.95 |

2000-Watt Solder Pot

- Thermostat control for setting temperature from 50°C to 300°C
- Holds up to 48 bars of P/N 170464CX or 176057CX, below
- Input voltage: 110VAC @ 18A 50-60Hz single phase
- 3 conductor pigtail power cord: 5' long
- Size (unit): 18.1"L x 11.5"W x 6.0"H
- Size (tub): 12.0"L x 8.0"W x 2.9"H
- Weight: 23.1 lbs. • One-year warranty



| Part No. | Description | 1 | 5 |
|----------|----------------------------|----------|----------|
| 149876CX | 2000 watt solder pot | \$399.95 | \$359.95 |

Solder Bars

- Used for soldering pots
- Tin/lead: 60/40 & 63/37
- Size: 13"L x 0.9"Dia.



| Part No. | Description | Wt. (lbs.) | 1 | 10 | 25 |
|----------|-------------|------------|--------|--------|--------|
| 176057CX | 60/40 | 1.1 | \$8.49 | \$7.65 | \$6.89 |
| 170464CX | 63/37 | 1.8 | 7.95 | 7.16 | 6.44 |

Solder Spool Stand

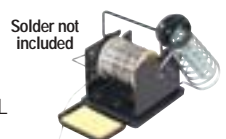
- 12 pc. solder spool stand (some assembly required)
- Size: 3.6"W x 3.9"D x 4.3"H
- Shaft dia.: 0.6" • Weight: 1.6 lbs.



| Part No. | Description | 1 | 10 | 100 |
|----------|------------------------|--------|--------|--------|
| 141760CX | Solder spool stand ... | \$8.95 | \$7.95 | \$6.95 |

Solder Spool and Iron Stand

- 4 pc. spool stand (some assembly required)
- Shaft diameter: 0.6"
- Size: 6"L x 3.5"W x 3.1"H
- Sponge size: 1.6"W x 2.4"L
- Weight: 2.0 lbs.



| Part No. | Description | 1 | 10 | 100 |
|----------|--------------------|---------|---------|---------|
| 169551CX | Spool & iron stand | \$16.95 | \$15.29 | \$13.75 |



60-Watt Analog Display Soldering Station

Maintains a steady temperature using a cartridge heating element, providing a longer life for the solid soldering tip.

- Electronic temperature control: 300°F to 850°F
- CMOS devices protected against voltage spikes
- Size: 4.3"W x 6.0"D x 3.4"H
- Weight: 4.1 lbs.

Includes: One 1/16" tip (P/N 35115CX – opposite pg.)

236460CX: Replacement sponge

168583CX: Tip .078" for 168401CX

168591CX: Tip .590" for 168401CX

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 236110CX | 168-3C | \$89.95 | \$79.95 | \$72.95 |
| 236460CX | 78-744615 | 2.99 | 2.69 | 2.49 |
| 168583CX | 46-060102 | 11.95 | 10.79 | 9.69 |
| 168591CX | 46-060115 | 12.95 | 11.69 | 10.49 |

42-Watt Controlled-Output Soldering Station



- Transformer powered soldering station complete with macro style, low voltage, temperature controlled soldering iron
- Closed loop method of controlling max. tip temperature for protection of temperature sensitive components
- Power unit housing features impact resistant plastic for durability
- Quick disconnect plug for soldering iron and lighted on/off switch
- Separate conductor grounds iron tip and terminates third pin of power cord
- 120VAC @ 60Hz input
- Uses PT series tips
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.0 lbs.

Includes: Soldering iron and PTA7 tip (below)

| Part No. | Prod. No. | Description | 1 | 10 |
|----------|-----------|-------------------------------|----------|----------|
| 170552CX | WTCPT | Solder station ... | \$129.95 | \$124.95 |
| 192161CX | TC201T | Replac. iron | 68.95 | 62.05 |
| 192170CX | PTA6 | .062" screwdriver tip (600°F) | 6.95 | 6.25 |
| 192188CX | PTA7 | .062" screwdriver tip (700°F) | 5.69 | 5.15 |
| 192196CX | PTA8 | .062" screwdriver tip (800°F) | 5.69 | 5.15 |

We'll match the print advertised price of any like product.

Jameco's Low-Price Guarantee

It's that simple!

Weller® 40-Watt Soldering Station

- Lighted on/off switch
- Adjustable power from 5 watts to 40 watts
- 120V @ 60Hz
- Temperature is electronically controlled from 350°F to 850°F
- Size: 5.5"L x 4.5"W x 3.5"H • Weight: 1.9 lbs.

Includes: ST3 1/8" screwdriver tip, soldering station and manual

| Part No. | Prod. No. | Description | 1 | 10 |
|----------|-----------|-------------------|---------|---------|
| 146595CX | WLC100 | Soldering station | \$48.95 | \$44.09 |

Weller® Soldering Tips

Replacement Tips for WLC100, WP25 & WP23

| Part No. | Prod. No. | Description | 1 | 10 |
|----------|-----------|-----------------------|--------|--------|
| 146608CX | ST1 | Screwdriver tip 1/16" | \$5.95 | \$5.35 |
| 146616CX | ST3 | Screwdriver tip 1/8" | 5.95 | 5.35 |
| 192145CX | ST6 | Screwdriver tip .031" | 5.25 | 4.75 |
| 146624CX | ST7 | Conical tip 1/32" | 5.95 | 4.95 |

50-Watt Analog & Digital Display Soldering Stations

Innovative heater and sensor combination for quick heat-up and rapid temperature recovery

- Tip temperature offset capability allows user to reset temperature readings to match tip size and style
- Wireless temperature lockout
- Auto power-down after 90 minutes of inactivity
- Temperature range: 350°F to 850°F
- Temp. accuracy: ±9.0°F
- ESD safe
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.0 lbs.

Includes: PES51 50W soldering iron with ETA tip, PH50 stand and sponge, and adjustment tool

| Part No. | Product No. | Description | 1 | 10 |
|----------|-------------|-------------|----------|----------|
| 217461CX | WES51 | Analog | \$115.95 | \$105.95 |
| 233533CX | WESD51 | Digital | 158.95 | 150.99 |

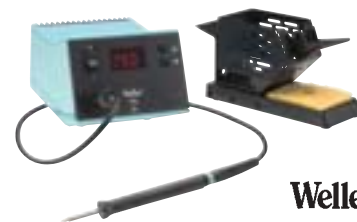
Weller® Soldering Tips

Replacement Tips for WES51

- Tip leakage: less than 2mV
- Tip to ground resistance: less than 2Ω
- Tips also used with WCC100 station
- Additional tips can be special ordered

| Part No. | Prod. No. | Description | 1 | 10 |
|----------|-----------|--------------------------|--------|--------|
| 16774CX | ETA | Screwdriver 1/16" | \$6.95 | \$6.25 |
| 16782CX | ETJ | Long screwdriver 1/32" | 6.95 | 6.25 |
| 16803CX | ETR | Narrow screwdriver 1/16" | 6.95 | 6.25 |
| 16811CX | ETS | Long conical 1/64" | 6.95 | 6.25 |

65-Watt Soldering Station with Micro Soldering Pencil



The micro soldering pencil has the shortest tip-to-grip distance on the market today, giving you excellent control by putting you closer to the work. The heating element is contained in the pencil rather than the tip so you do not throw away a good heater every time you wear out a tip.

- Fast heat-up and thermal recovery
- Tips are secured to the pencil by use of a threaded end, eliminating the use of a barrel nut
- Temperature is reduced to 300°F (150°C) when pencil is not used for 20 minutes. Unit is switched off after 60 minutes of inactivity
- ESD safe to protect sensitive components
- Voltage: 120V input; 24V output
- Temperature range: 150°F-850°F (66°C-454°C)
- Temperature accuracy: ±9°F (±5°C)
- Temperature stability: ±10°F (±6°C)

Includes: WSLPU power unit, WMP soldering pencil with NT1 tip, and WMPH iron stand

| Part No. | Product No. | 1 | 5 |
|----------|-------------|----------|----------|
| 227408CX | WSL | \$255.95 | \$237.95 |

Weller® Soldering Tips

Replacement Tips for WSL

| Part No. | Prod. No. | Description | 1 | 5 |
|----------|-----------|---------------------|--------|--------|
| 233576CX | NT1X | 0.8mm bent round .. | \$8.89 | \$8.45 |
| 233550CX | NTA | 0.6mm chisel | 7.59 | 7.25 |
| 233568CX | NTB | 2.4mm chisel | 7.59 | 7.25 |
| 233541CX | NT1 | .25mm micro | 7.59 | 7.25 |



SMD Rework Station

Engineered to meet the demanding needs of today's electronic industry, technician service/repair centers, and assembly work. With this system, replacement of surface mount devices or dual-in-line components is a snap. It not only increases productivity in SMD assembly repair, but achieves a new standard of quality, superior performance, and ease of operation.

- High-performance, inexpensive, versatile
- Adjustable temperature: 250°C - 450°C (482°F - 842°F)
- Thermocouple sensor for stable temperature
- Long-life ceramic heating element
- Rapid heat-up and recovery
- 40W station, 25W ceramic element
- Size: 7.4"L x 5.0"W x 3.3"H • Weight: 2.6 lbs.

Includes: Base power unit, sponge, stand, surface mount tweezer iron, and stand for tweezers

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------|---------|---------|---------|
| 224629CX | Rework station | \$89.95 | \$80.99 | \$72.85 |

45-Watt Analog Display Soldering Station

Grounded Soldering Tip

- 500°F to 850°F • Fully grounded
- Insulated ceramic heating element for rapid heat-up and heat recovery
- Heater insulation exceeds 100MΩ
- Zero voltage circuitry eliminating high voltage spike and magnetic field generation
- Size: 7.0"L x 4.5"W x 3.5"H • Weight: 2.5 lbs.

Includes: Manual, soldering iron, stand and two sponges

| Part No. | Product No. | Description | 1 | 10 | 25 |
|----------|-------------|--------------------------------------|---------|---------|---------|
| 229673CX | XYT379-C | 45-Watt soldering station | \$59.95 | \$53.95 | \$48.95 |
| 156814CX | XYB01 | Sharp conical chisel 1/32" tip | 4.95 | 4.49 | 3.95 |
| 156822CX | XYB04 | Conical chisel 1/16" tip | 4.95 | 4.49 | 3.95 |
| 134631CX | SP715 | Replacement sponge | 2.99 | 2.69 | 2.49 |

60-Watt Digital Display Soldering Stations

Designed for soldering situations where precise temperature is required for sensitive components.

- Temperature is maintained at ±6°F
- Electronic temperature control from 392° to 878°F
- External calibration port
- CMOS devices protected against voltage spikes
- Power-on and heater-on LED indicators
- Size: 5.1"W x 8.0"D x 4.0"H • Weight: 4.8 lbs.

Includes: One 1/16" tip (P/N 35115CX – below)

| Part No. | Product No. | Description | 1 | 10 | 25 |
|----------|-------------|--|----------|---------|---------|
| 236101CX | XY9-60D/ESD | Digital soldering station – ESD safe | \$109.95 | \$99.95 | \$89.95 |
| 219627CX | XY9-60A | Analog soldering station | 99.95 | 89.95 | 79.95 |
| 168401CX | TWZ50ESD | SMD tweezer iron w/ 0.078" tip | 79.95 | 71.95 | 64.95 |
| 168583CX | 46-060102 | Tip .078" for P/N 168401CX | 11.95 | 10.79 | 9.69 |
| 168591CX | 46-060115 | Tip .590" for P/N 168401CX | 12.95 | 11.69 | 10.49 |
| 236460CX | 78-744615 | Replacement sponge for both stations | 2.99 | 2.69 | 2.49 |

60-Watt Desoldering & Solder/Desoldering Stations



125508CX



125516CX

- Simple fine tune feature to select within 300–850°F range
- Vacuum pump activated "on demand" using finger tip switch on desolder handle
- CMOS devices protected against voltage spikes

125508CX:

- Size: 9.2"L x 7.2"W x 3.6"H
- Weight: 13.1 lbs.

Includes: XYD12 tip and solder holder

125516CX/223853CX: Size: 11"L x 10"W x 4.0"H; Wt.: 18.1 lbs.

Includes: XYD12 tip, solder holder, tip cleaner and tweezers

223853CX: Dual display of tip temperature with selector switch for °C or °F and read/set temperature

Special 5% Bundle Savings
Complete ISO 9000 digital station –
P/N 236101CX & 125508CX
Sold separately \$409.90
Combined: P/N 207263CX
\$388.95

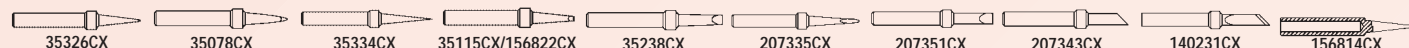
| Part No. | Product No. | Description | 1 | 10 | 25 |
|----------|-------------|---|----------|----------|----------|
| 125508CX | 968 | Desoldering station | \$299.95 | \$269.99 | \$242.99 |
| 125516CX | 988 | Solder/desoldering station | 399.95 | 359.99 | 323.99 |
| 223853CX | 988D | Solder/desoldering (dual display) | 459.95 | 413.95 | 372.55 |
| 207271CX | TWZ60ESD | SMD tweezer iron with .078" tip | 69.95 | 62.95 | 56.95 |
| 207221CX | D1A60A | Replacement desoldering iron | 74.95 | 67.49 | 59.95 |
| 168583CX | 46-060102 | Tip .078" for P/N 207271CX | 11.95 | 10.79 | 9.69 |
| 168591CX | 46-060115 | Tip .590" for P/N 207271CX | 12.95 | 11.69 | 10.49 |
| 236460CX | 78-744615 | Replacement sponge for all stations | 2.99 | 2.69 | 2.49 |

Replacement Sponges for Legacy Models

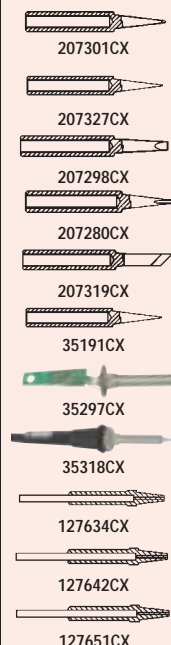
| Part No. | Product No. | For Station | 1 | 10 | 100 |
|----------|-------------|-------------------------------------|--------|--------|---------------|
| 134640CX | SP815 | 168-3C | \$2.99 | \$2.55 | \$1.95 |
| 134631CX | SP715 | XY-60D, XY-379 & P/N 229673CX | 2.99 | 2.69 | 2.49 |

See page 217 for Chemicals to Assist You in Your Soldering Projects.

Tips & Replacement Parts For XYTronic Soldering and Desoldering Products



| | | | For XYTronic Model Numbers (*Legacy Models) | | | | | | | | | | | | | | | |
|-------------|----------------|--|---|---------------|------|----------------|-----|-------|-------|-----|-----|--------|--------|--------|-------|---------|--------|--------|
| Part Number | Product Number | Description | 168ESD | 200CX, 200PHG | 168* | 168ESD, 200PHG | 379 | XYB04 | 960D* | 968 | 988 | 999SD* | JS238* | 168-3C | 2660* | Pricing | | |
| | | | | | | | | | | | | | | | | | 1 | 10 | 25 |
| 35326CX | XY401 | Soldering tip - conical bevel 1/32" | | ✓ | ✓ | | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | \$4.49 | \$3.95 | \$3.65 |
| 35078CX | XY402 | Soldering tip - semi-chisel 1/32" | | ✓ | ✓ | | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | 4.49 | 3.95 | 3.65 |
| 35334CX | XY403 | Soldering tip - conical sharp 1/64" | | ✓ | ✓ | | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | 4.49 | 3.95 | 3.65 |
| 35115CX | XY404 | Soldering tip - conical chisel 1/16" | | ✓ | ✓ | | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | 4.49 | 3.95 | 3.65 |
| 35238CX | XY405 | Soldering tip - semi-chisel wide 1/8" | | ✓ | ✓ | | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | 4.49 | 3.95 | 3.65 |
| 207335CX | XY406 | Soldering tip - long conical chisel 3/64" | | ✓ | ✓ | | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | 2.95 | 2.69 | 2.39 |
| 207351CX | XY410 | Soldering tip - chisel 3/16" | | ✓ | ✓ | | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | 2.95 | 2.69 | 2.39 |
| 207343CX | XY411 | Soldering tip - wedge 3/16" | | ✓ | ✓ | | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | 2.95 | 2.69 | 2.39 |
| 140231CX | XY430 | Soldering tip - SMD flat pack 7/32" | | ✓ | ✓ | | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | 8.95 | 7.95 | 7.25 |
| 156814CX | XYB01 | Soldering tip - sharp conical chisel 1/32" | ✓ | | | | ✓ | | | | ✓ | | | | | 4.95 | 4.49 | 3.95 |
| 207301CX | XYB02 | Soldering tip - conical semi-sharp 1/32" | ✓ | | | | ✓ | | | | ✓ | | | | | 4.95 | 4.49 | 3.95 |
| 207327CX | XYB03 | Soldering tip - conical sharp 1/64" | ✓ | | | | ✓ | | | | ✓ | | | | | 4.95 | 4.49 | 3.95 |
| 156822CX | XYB04 | Soldering tip - conical chisel 1/16" | ✓ | | | | ✓ | | | | ✓ | | | | | 4.95 | 4.49 | 3.95 |
| 207298CX | XYB05 | Soldering tip - semi-wide chisel 1/8" | ✓ | | | | ✓ | | | | ✓ | | | | | 4.95 | 4.49 | 3.95 |
| 207280CX | XYB06 | Soldering tip - long conical chisel 3/64" | ✓ | | | | ✓ | | | | ✓ | | | | | 4.95 | 4.49 | 3.95 |
| 207319CX | XYB30 | Soldering tip - wedge blade 3/16" | ✓ | | | | ✓ | | | | ✓ | | | | | 8.95 | 7.65 | 5.75 |
| 35191CX | XY25 | Soldering tip - conical sharp 1/64" | | | | | | | | | | | | | ✓ | 6.49 | 5.85 | 5.25 |
| 35297CX | XY37 | Heating element- (nichrome) | | ✓ | ✓ | | | ✓ | | | | ✓ | | ✓ | | 20.95 | 18.95 | 16.95 |
| 35318CX | XY48 | Assembly - 60W w/ nichrome heater | | ✓ | ✓ | | | ✓ | | | | ✓ | | ✓ | | 30.95 | 27.95 | 24.95 |
| 127634CX | XYD10 | Desoldering tip - 1.0mm (.0394") | | | | | | | ✓ | ✓ | | ✓ | | | | 8.95 | 7.95 | 7.25 |
| 127642CX | XYD12 | Desoldering tip - 1.2mm (.0472") | | | | | | | ✓ | ✓ | | ✓ | | | | 8.95 | 7.95 | 7.25 |
| 127651CX | XYD15 | Desoldering tip - 1.5mm (.0586") | | | | | | | ✓ | ✓ | | ✓ | | | | 8.95 | 7.95 | 7.25 |



Test/Tools



16 to 30-Watt Variable Soldering Iron, Stand & Sponge

- 116572CX:**
• Length: 7.5"
36329CX:
• Black anodized steel base – 5.3"L x 3.3"W
• See below for replacement sponge (P/N 134631CX)
• Fits most soldering irons .85" diameter

Includes: Sponge

| Part No. | Description | 1 | 10 | 100 |
|----------|--------------------------------|---------|---------|---------|
| 116572CX | Soldering iron | \$16.95 | \$15.29 | \$13.75 |
| 36329CX | Soldering stand | 4.95 | 4.46 | 4.01 |
| 134631CX | Sponge (for P/N 36329CX) | 2.99 | 2.69 | 2.49 |



Special! Low-Cost Irons

30-Watt Soldering Iron and Stand

- UL approved
- Ideal for precision work
- 1/4" removable tip
- Length: 8.3"
- 110-120VAC

| Part No. | Description | 1 | 10 | 100 |
|----------|----------------------------|--------|--------|--------|
| 102461CX | 30W soldering iron | \$4.99 | \$4.49 | \$4.04 |
| 116020CX | Replacement tips (2) | 2.25 | 1.79 | 1.25 |
| 36329CX | Soldering stand | 4.95 | 4.46 | 4.01 |



35-Watt Soldering Iron

- UL approved
- Ideal for maintenance and hobby use
- 0.157" removable tip
- Length: 8.1"
- 110-120VAC

| Part No. | Description | 1 | 10 | 100 |
|----------|--------------------------------|--------|--------|--------|
| 208987CX | 35W soldering iron | \$2.99 | \$2.69 | \$2.45 |
| 208995CX | Replacement tips (2) | .99 | .89 | .79 |
| 209074CX | Solder roll, 8mm (.031") | 5.49 | 4.89 | 3.95 |



Weller® 40-Watt Soldering Iron

- Develops 900°F (482°C) of heat
- MT10 1/4" (10mm) diameter replaceable nickel plated copper tip
- Stainless steel barrel
- Length: 8.25"
- 120VAC @ 50-60Hz
- Heat & impact resistant handle
- Weight: 0.27 lbs. • 7-year warranty

| Part No. | Prod. No. | Description | 1 | 10 |
|----------|-----------|--------------------------|---------|---------|
| 170561CX | SP40L | 40W solder iron ... | \$13.83 | \$12.57 |
| 188980CX | MT10 | 1/4" chisel tip 2 pk ... | 6.99 | 6.29 |



Light-Duty 23-Watt Soldering Iron & Kit

- Ideal for hobby or electronics kit work
- 1/8" removable tip
- Indicator light
- Length: 8"
- 120VAC @ 60Hz

191960CX: Includes iron, MT1 (cone shaped), MT2 (screwdriver), MT3 (chisel) 1/8" tips, lead free solder, soldering aid tool and stand • Weight: 2.0 lbs.
189384CX/191978CX/191986CX: 2 pack

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------------------------|---------|--------|--------|
| 152872CX | Iron only (SP23L) | \$10.45 | \$9.40 | \$8.46 |
| 191960CX | Iron kit (SP23LK) | 15.95 | 15.49 | 14.75 |
| 189384CX | 1/8" cone tip (MT1) | 4.95 | 4.49 | 3.95 |
| 191978CX | 1/8" screwdriver tip (MT2) | 3.79 | 3.59 | 3.45 |
| 191986CX | 1/8" chisel tip (MT3) | 4.49 | 4.04 | 3.64 |



Thermally Balanced 25-Watt Soldering Iron

The XY200GX is a thermally balanced soldering iron for the professional or hobbyist.

- 120VAC; 6' cord • 25-watt power consumption
- Interchangeable tips (pg 213)
- One-year warranty • UL listed • Length: 8.0"

Includes: 1.6mm conical tip

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------------|---------|---------|--------|
| 129040CX | 25W solder. iron | \$11.49 | \$10.35 | \$9.35 |

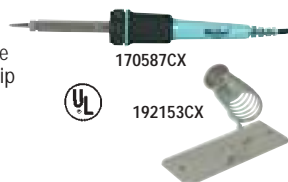


High-Quality 25-Watt & 35-Watt Soldering Irons

- Interchangeable heater elements
- Lightweight handle with cushioned grip
- Quick change knurled collar
- Length: 9"
- 120VAC @ 60Hz

Includes: Power cord & ST3 tip (pg 212)

| Part No. | Product No. | Description | 1 | 10 |
|----------|-------------|-------------------------|---------|---------|
| 170587CX | WP25 | 25W solder iron | \$32.95 | \$31.35 |
| 192102CX | WP35 | 35W solder iron ... | 39.95 | 35.95 |
| 192153CX | PH25 | Solder iron stand | 16.19 | 15.35 |



Economical, High-Performance Soldering Irons

High-quality soldering irons that are suitable for both professional and do-it-yourself applications.

- 25W, 40W, & 60W • Length: 9"
- 120VAC; 6' cord with 3-prong plug
- Tips for 224611CX/224602CX:
226000CX chisel; **226018CX** conical
- Tips for 195223CX:
226026CX chisel; **226034CX** conical

| Part No. | Product No. | 1 | 10 | 25 |
|----------|---------------------|--------|--------|--------|
| 224611CX | 200PHG-25W | \$7.95 | \$7.15 | \$6.45 |
| 224602CX | 200PHG-40W | 9.95 | 8.95 | 8.09 |
| 195223CX | 200PHG-60W | 13.95 | 12.49 | 12.11 |
| 226000CX | 44-240517 tip | .95 | .85 | .79 |
| 226018CX | 44-240513 tip | .95 | .85 | .79 |
| 226026CX | 44-240617 tip | 1.95 | 1.79 | 1.59 |
| 226034CX | 44-240603 tip | 1.95 | 1.79 | 1.59 |



Weller® 100-Watt Soldering Iron

- "Closed loop" method of controlling maximum tip temperature
- Nominal heat-up time with 700°F tip is 110 seconds
- 120VAC @ 60Hz input
- Length: 6" • Weight: 0.7 lbs.

Includes: CT6F7 (0.375" screwdriver tip; 700°F)

| Part No. | Prod. No. | Description | 1 | 5 |
|----------|-----------|-----------------------------|---------|---------|
| 192081CX | W100PG | Solder iron | \$62.95 | \$59.79 |
| 192090CX | CT6F7 | .375" screwdriver tip | 8.59 | 7.75 |



SMD Tweezer Iron

- Maximum efficiency ceramic heating elements insures rapid heat-up and instant heat recovery
- Max. temp.: 760°F
- 120VAC
- Heater insulation exceeds 100MΩ
- Heater power consumption: 35W each

Includes: 0.095" tip

| Part No. | Description | 1 | 10 | 25 |
|----------|--------------------|---------|---------|---------|
| 168410CX | Tweezer iron | \$59.95 | \$53.95 | \$48.95 |
| 168583CX | Tip .078" | 11.95 | 10.79 | 9.69 |
| 168591CX | Tip .590" | 12.95 | 11.69 | 10.49 |



WAHL® Cordless Soldering Iron

The #1 choice for field service soldering!

IsoTip® Power Pro Model #7904

- 900°F tip temperature
- Iron performance equivalent to 25-watt iron
- Solders 200+ joints or up to 30 minutes of continuous soldering
- LED indicator light
- Weight: 1.1 lbs.

Includes: Soldering iron, recharging stand, Ni-Cad battery pack, and tips

| Part No. | Description | 1 | 10 |
|----------|------------------------------|---------|---------|
| 132783CX | Power Pro cordless iron | \$61.95 | \$58.85 |



Weller® Cordless Soldering Iron Kit

- Self igniting and instant heat
- Adjustable temperature (25W to 125W)
- Auto switch off
- Visible gas level
- Additional tips can be special ordered
- 2 hours of heat on average tank setting

Includes: soldering tool, hot blower tip, hot knife tip, 2.4mm and 4.8mm double flat tip, cleaning sponge, storage case and instruction manual

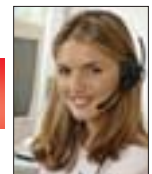
| Part No. | Prod. No. | Description | 1 | 5 |
|----------|-----------|----------------|---------|---------|
| 152207CX | PSI-100K | Tool kit | \$79.95 | \$75.95 |



Sale items in yellow.

Jameco Special Values!

Great quantity discounts in green.



Hot Air SMD Rework Station with Digital Display

The Hot-Air SMD 850D is engineered to meet the demanding needs of today's electronic industry, technicians, service/repair and assembly rework. The system not only increases productivity for SMD assembly and repair but also achieves a new standard of quality.

- Incorporates a US made pump – the largest in the industry
- Long life ceramic heater insures accurate and sufficient heat where you need it
- Adjustable air-flow
- Electronically controlled temperature system with digital readout in preset and actual temperature
- Automatic cooling mode protects the heating element
- Power supply: 100-120 or 220-240VAC
- Airflow capacity: 1.5L/min. – 28L/min.
- 310W nichrome heating element
- Hot air temperature range: 100°-385°C (212° – 725°F)
- Size: 7.4"W x 9.6"D x 5.0"H



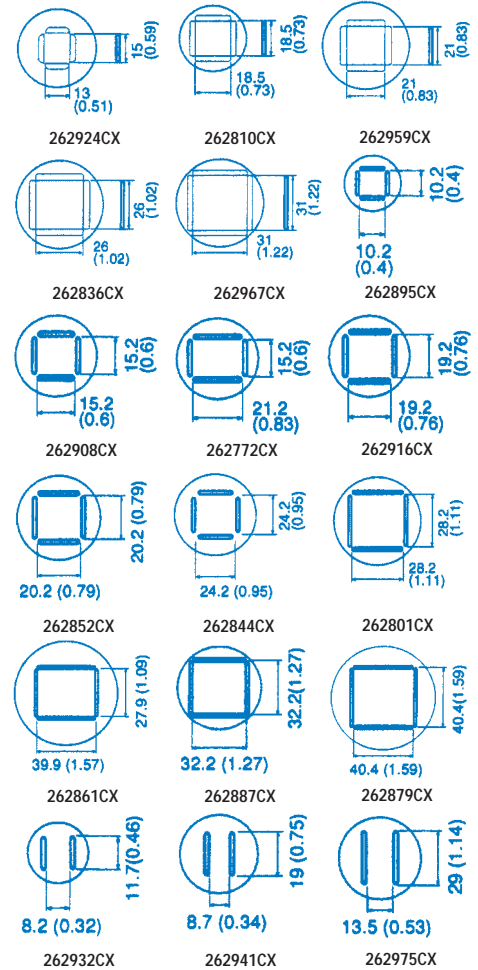
- 25W diaphragm pump
- Weight: 10.8 lbs.



Includes: 5 pc. Precision non-magnetic tweezer set, 4 focus hood tips (single 2.5mm and 4.4mm pipes, P/N 262895CX and 262908CX)

| Part No. | Product No. | Description | 1 | 5 |
|----------|-------------|--|----------|----------|
| 262705CX | 850D | Hot air SMD rework station | \$395.00 | \$375.25 |
| 262983CX | HG850D | Heat gun replacement | 78.95 | 74.95 |
| 262924CX | A1141B | Focus hood tip, PLCC 11.5 x 14 | 34.95 | 33.25 |
| 262810CX | A1135B | Focus hood tip, PLCC 17.5 x 17.5 | 34.95 | 33.25 |
| 262959CX | A1136B | Focus hood tip, PLCC 20 x 20 | 49.95 | 48.29 |
| 262836CX | A1137B | Focus hood tip, PLCC 30 x 30 | 49.95 | 48.29 |
| 262967CX | A1138B | Focus hood tip, PLCC 30 x 30 | 49.95 | 48.29 |
| 262895CX | A1125B | Focus hood tip, QFP 10 x 10 | 34.95 | 33.25 |
| 262908CX | A1126B | Focus hood tip, QFP 14 x 14 | 34.95 | 33.25 |
| 262772CX | A1128B | Focus hood tip, QFP 14 x 20 | 34.95 | 33.25 |
| 262916CX | A1127B | Focus hood tip, QFP 17.5 x 17.5 | 34.95 | 33.25 |
| 262852CX | A1261B | Focus hood tip, QFP 20 x 20 | 49.95 | 48.29 |
| 262844CX | A1182B | Focus hood tip, BQFP 24 x 24 | 49.95 | 48.29 |
| 262801CX | A1129B | Focus hood tip, QFP 28 x 28 | 49.95 | 48.29 |
| 262861CX | A1263B | Focus hood tip, QFP 28 x 40 | 79.95 | 75.95 |
| 262887CX | A1265B | Focus hood tip, QFP 32 x 32 | 79.95 | 75.95 |
| 262879CX | A1264B | Focus hood tip, QFP 40 x 40 | 79.95 | 75.95 |
| 262932CX | A1258B | Focus hood tip, SOP 7.6 x 12.7 | 34.95 | 33.25 |
| 262941CX | A1260B | Focus hood tip, SOP 8.6 x 18 | 34.95 | 33.25 |
| 262975CX | A1259B | Focus hood tip, SOP 13 x 28 | 49.95 | 48.29 |

Focus Hood Tips Dimensions: mm (in.)



Soldering Tip

What is the correct way to solder?



Follow these three steps:

Step 1: The connection to be soldered must be clean. A small file, sanding pen or steel brush can be used if needed. A good soldered connection also requires a good mechanical connection. Make sure that wires are firmly attached to terminals or each other before soldering.

Step 2: When using a new soldering tip, coat the tip with solder to prevent oxides from forming, then immediately brush off the excess with a soft cloth to form a smooth, silvery soldering surface. This process is referred to as "tinning".

Step 3: Apply tapered surface of the soldering iron tip to the connection (see picture above). Allow connection to become hot, then apply solder. Don't use the point to melt solder—let the connection melt it to avoid "cold" solder joints. When soldering delicate components, work quickly and use a heat sink to draw off damaging heat.

Butane-Powered Cordless Soldering Iron and Tips

This butane-powered soldering iron is designed for many popular cordless applications. Most common are automotive repair, aviation, electrical components, field repair, shrink tubing, television repair and more.

- Cordless, simple operation in the shop or field
- No electrical interference
- Automatic ignition
- Up to 200 minutes of operation in a full load
- Soldering temperature range: 240°F to 1000°F
- Torch temperature: 2400°F



| Part No. | Product No. | Description | 1 | 5 |
|----------|-------------|-----------------------------|---------|---------|
| 255265CX | PRO-120 | Butane soldering iron | \$44.95 | \$42.69 |
| 262107CX | S-30 | Tip, deflector | 1.19 | 1.09 |
| 255273CX | PS-1 | Tip, 1/32" flat | 8.99 | 8.75 |
| 255290CX | PS-2 | Tip, 3/32" flat | 8.99 | 8.75 |
| 255302CX | PS-3 | Tip, 1/8" flat | 8.99 | 8.75 |
| 255311CX | PS-4 | Tip, 3/16" flat | 8.99 | 8.75 |
| 255329CX | PS-5 | Tip, 1/32" chisel | 8.99 | 8.75 |
| 255337CX | PS-6 | Tip, 3/32" chisel | 8.99 | 8.75 |
| 255361CX | PS-9 | Tip, hot blower | 8.99 | 8.75 |
| 255370CX | PS-10 | Tip, hot knife | 8.99 | 8.75 |

30-Day Money-Back Guarantee

If you're not completely satisfied with your purchase, we'll take it back! Details on page 241.

Rosin Core Solder Rolls and Pocket Packs

| Part No. | Mfr. | % Composition | | | Dia. (In.) | Wt. (lbs.) | Pricing | | | |
|----------|--------------|---------------|------|--------|------------|------------|---------|--------|--------|--------|
| | | Tin | Lead | Silver | | | 1 | 10 | 50 | 100 |
| 141778CX | Kester (pak) | 60 | 40 | 0 | .031 | 0.04 | \$2.59 | \$2.35 | \$1.99 | \$1.85 |
| 32117CX | Kester | 60 | 40 | 0 | .031 | 1.00 | 13.19 | 11.89 | 10.69 | 9.59 |
| 73605CX | Kester (pak) | 62 | 36 | 2 | .020 | 0.10 | 1.75 | 1.49 | 1.31 | 1.15 |
| 112344CX | Kester | 63 | 37 | 0 | .020 | 1.10 | 17.95 | 16.19 | 14.55 | 13.09 |
| 151474CX | Kester* | 63 | 37 | 0 | .031 | 1.00 | 17.69 | 15.95 | 14.35 | 12.89 |
| 170456CX | Golden | 60 | 40 | 0 | .031 | 0.06 | 1.39 | 1.25 | 1.05 | .74 |
| 141794CX | Super | 60 | 40 | 0 | .031 | 0.55 | 5.95 | 5.39 | 4.85 | 4.35 |
| 141786CX | Super | 60 | 40 | 0 | .031 | 1.10 | 7.95 | 6.95 | 6.25 | 5.59 |
| 141778CX | Super | 60 | 40 | 0 | .031 | 2.20 | 13.95 | 12.95 | 11.95 | 10.95 |

* Organic core

Lead-Free Solder Tip Tinner

Prevents oxide buildup and tin depletion on the tip. Increases tip life and heat transfer resulting in a better solder joint!

- 0.7 oz. tin with self adhesive pad



Safe and Effective!

| Part No. | Description | 1 | 10 | 50 |
|----------|----------------------|--------|--------|--------|
| 132986CX | Lead-free tip tinner | \$4.95 | \$4.59 | \$4.19 |

5' No-Clean Desolder Braids

Meets all of the most stringent soldering standards for worldwide application including: MIL-F-142560D Type R, NASA specification NHB5300.4, NPC200-4 and SP-5002.

- Length: 5'



139951CX 124126CX



| Part No. | Description | 1 | 10 | 100 |
|----------|----------------------------|--------|--------|--------|
| 139951CX | .030"W desolder braid .. | \$2.25 | \$1.95 | \$1.75 |
| 124126CX | .060"W desolder braid | 2.35 | 2.15 | 1.95 |
| 124118CX | .075"W desolder braid | 2.39 | 2.15 | 1.95 |
| 263708CX | .098"W desolder braid | 2.59 | 2.35 | 2.23 |

5' Desoldering Braids

- Easy-to-use, handy dispenser
- Braided copper with flux



41099CX

| Part No. | Description | 1 | 10 | 100 |
|----------|-------------------------|--------|--------|--------|
| 41081CX | .079"W braid (5') | \$1.49 | \$1.35 | \$1.19 |
| 41099CX | .098"W braid (5') | 1.55 | 1.29 | 1.15 |
| 153461CX | .120"W braid (5') | 1.59 | 1.39 | 1.25 |

ProWick® Desoldering Braid

Pure Rosin

Finest oxygen-free and oil-free fine gauge wire, the 100% copper wire is then coated with flux, which cleans connections thoroughly during desoldering to insure maximum solderability. The thin coating of flux also provides dependable, long lasting protection from oxidation.

- 263581CX with bobbin



263695CX

| Part No. | Product No. | 1 | 10 | 100 |
|----------|-------------------------|--------|--------|--------|
| 263695CX | 1803-5F (0.075"W) | \$1.95 | \$1.77 | \$1.68 |
| 263599CX | 1804-5F (0.098"W) | 2.09 | 1.89 | 1.79 |
| 263581CX | 1811-5F (0.098"W) | 2.39 | 2.19 | 2.09 |

Desoldering Wick

No more burnt fingers

- Handy dispenser
- Length: 5'
- Pure copper braid
- No clean flux formula



| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------|--------|--------|--------|
| 175986CX | 0.067"W braid | \$2.99 | \$2.69 | \$2.42 |

One-Shot Desoldering Gun

This low maintenance desoldering gun with self-contained vacuum pump is perfect for desoldering through-hole components.

- Power consumption: 60W
- Interchangeable standard tips
- Zero static tip, 3 wire grounded
- Sensitive where CMOS protection is needed
- Quick release stainless solder collector
- Electronic temperature control
- Ergonomic, lightweight design
- 120VAC
- One-year warranty
- Gun casing size: 7.0"L x 4.0"W
- Weight: 2.2 lbs.

Includes: 1.0mm tip



| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------------|---------|---------|---------|
| 129066CX | Desolder gun | \$99.95 | \$89.95 | \$79.95 |
| 140214CX | "Y" replacement tip | 10.95 | 9.95 | 8.95 |
| 134594CX | 1.0mm replace. tip | 8.95 | 7.95 | 7.19 |
| 134607CX | 1.2mm replace. tip | 8.95 | 7.95 | 7.19 |

Clip-On Heat Sink

- Absorbs and dissipates heat during soldering and desoldering sensitive parts
- Size: 2.7"L x 0.7"W



| Part No. | Mfr. Cross Ref. No. | 1 | 10 | 25 |
|----------|---------------------|--------|--------|--------|
| 159126CX | HT156 | \$2.65 | \$2.38 | \$2.15 |

Heat Sink and 7-Piece Soldering Aid Kit



100378CX: Heat sink absorbs and dissipates heat during soldering & desoldering of sensitive parts
100503CX Includes soldering wick, 3 pc. scraper set, acid brush, clip-on heat sink and empty squirt bottle

| Part No. | Description | 1 | 10 | 50 |
|----------|---------------------|--------|--------|--------|
| 100378CX | Heat sink | \$0.75 | \$0.71 | \$0.59 |
| 100503CX | Soldering kit | 4.05 | 3.79 | 3.79 |

Plastic Pump Bottle

- 6 oz. bottle
- ESD compliant
- Plastic bottle with dispenser cover



| Part No. | Description | 1 | 10 | 50 |
|----------|-------------------|--------|--------|--------|
| 158131CX | Pump bottle | \$9.95 | \$8.95 | \$7.95 |

Soldering Tip Cleaner with Stand and Rosin Paste Flux

156777CX:

- For cleaning soldering iron tips without the use of water and sponge
- Metal wool for cleaning
- Rubberized base for stability



156777CX 73584CX

73584CX: Highly active non-corrosive and non-conductive flux with excellent wetting action

| Part No. | Description | 1 | 10 | 50 |
|----------|-----------------------------|--------|--------|--------|
| 156777CX | Tip cleaner & stand | \$4.95 | \$4.49 | \$4.05 |
| 160004CX | Metal wool replacement .. | 2.79 | 2.49 | 2.29 |
| 73584CX | Rosin paste flux (2 oz.) .. | 1.99 | 1.89 | 1.79 |

PANA VISE Vacuum Base Vise

An exceptionally lightweight, portable vise that firmly attaches to any flat, smooth, non-porous surface. A single knob locks the head into position, while a second knob locks the arm at any angle you select. This vise will hold any item weighing up to 3 pounds.

- Head moves through three planes: 210° tilt, 360° turn and rotation
- Grooved jaws are excellent for holding small objects and are made of reinforced thermal alloy and opens up to 2.9"
- Fine/coarse adjustment knobs control jaw pressure
- Arm movement is 140°; positive indents control movement to prevent "flopping"
- Lever locks vacuum pad into place on any flat, smooth, non-porous surface
- Jaw size: 2"H x 1"W
- Overall height: 7.5"H
- Base diameter: 3.4"
- Weight: 0.8 lbs.



| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 251791CX | 209 | \$32.49 | \$30.99 |

PANA VISE Vacuum Vise

- Features the patented "split ball" that tilts, turns and rotates through three planes
- Nylon jaws open a full 2.25"
- Powerful suction pad for quick and easy set-up
- Size: 5.0"L x 4.0"W x 6.3"H
- Weight: 3.3 lbs.
- One-year warranty



| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 27131CX | M381 | \$55.95 | \$53.25 |

PANA VISE PVJr. Vise

- Jaw opening: 2.8"
- Jaw size: 1" wide x 2" long
- Jaw heat tolerance: 350°F
- Vertical/horizontal jaw grooves
- Fine/coarse adjusting knob
- The vise neck tilts, turns and rotates
- Vise height: 6.8"
- Base bolt is 4.3" and fits all PanaVise base mounts
- Weight: 1.4 lbs.
- One-year warranty



| Part No. | Description | 1 | 10 |
|----------|-------------------------------|---------|---------|
| 134439CX | Jr. vise w/ mountable base .. | \$21.95 | \$19.95 |

For additional tools
see pages 182 - 193.

Vacuum Vise

- Features the patented "split ball" that tilts, turns and rotates through three planes
- Nylon jaws open a full 2.25"
- Powerful suction pad for quick and easy set-up
- Size: 5.0"L x 4.0"W x 6.3"H
- Weight: 3.3 lbs. • One-year warranty



| Part No. | Product No. | Description | 1 | 5 |
|----------|-------------|----------------|---------|---------|
| 262115CX | GV-300 | Vacuum vise .. | \$47.19 | \$44.85 |

Hobby Table Vise

Made of aluminum die cast construction, this is an ideal tool for the hobbyist.

- Jaw width: 2.4"
- Maximum opening: 2.0"
- Clamps to any surface up to 1" thick



| Part No. | Description | 1 | 5 |
|----------|------------------|--------|--------|
| 262001CX | Hobby vise | \$6.75 | \$6.35 |

Clamp Vise

- Lightweight, sturdy construction
- No tools needed – finger turn to tighten
- Ball cup allows vise to adjust to any angle
- Nylon jaws open 2" • Size: 10.0"L x 2.5"W

SALE



| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-------------|------------|---------|---------|
| 127167CX | Clamp vise | 2.1 | \$17.95 | \$16.99 |

PANAVISE Electronic Work Center

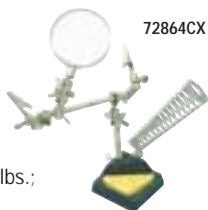
- Circuit board holder, standard base, tray base mount, solder station, sponges and wire holder included
- Size: 8.5"W x 7.8"H
- Weight: 5.3 lbs.
- One-year warranty



| Part No. | Description | 1 | 5 | 10 |
|----------|------------------------|---------|---------|---------|
| 27060CX | Electronic center | \$74.95 | \$71.25 | \$66.95 |

Third Hand

- Frees hands for soldering
- Two adjustable arms with alligator clip jaws
- 2" diameter magnifying lens
- Quick and easy rotation
- Sturdy, heavy base
- Weight: P/N 26690CX: 0.7 lbs.; P/N 72864CX: 1.4 lbs.



| Part No. | Description | 1 | 10 | 50 |
|----------|---------------------------|--------|--------|--------|
| 26690CX | Third hand | \$5.95 | \$5.35 | \$4.79 |
| 72864CX | W/ soldering holder | 7.95 | 7.19 | 6.49 |

DATAK Direct Etch PCB "Starter" Set

Includes: 4 blank circuit boards, dry concentrated ferric chloride etchant, instructions, 8 sheets of direct etch donuts, DIP, patterns, lines and 1/32" & 1/16" etch resist tape.



| Part No. | Product No. | Wt. (lbs.) | 1 | 10 |
|----------|-------------|------------|---------|---------|
| 70412CX | ER1 | 0.7 | \$11.95 | \$10.95 |



- Safe on plastics
- EPA SNAP approved, no CFCs or HCFCs



Workshop Chemicals



Envi•Ro•Tech™ Duster

Removes microscopic contaminants, line, dust, metallic oxide, deposits, and other soils without the use of harmful solvents.

| Part No. | Description | Wt. (lbs.) | 1 | 12 |
|----------|----------------------------|------------|--------|--------|
| 139900CX | 10 oz. aerosol w/ trigger* | 0.8 ... | \$6.95 | \$6.25 |
| 263530CX | 15 oz. aerosol w/ trigger* | 0.8 | 8.23 | 7.49 |

Envi•Ro•Tech™ Freezer

Rapidly evaporating liquid that can chill to -62°F.

| Part No. | Description | Wt. (lbs.) | 1 | 12 |
|----------|---------------------|------------|--------|--------|
| 139934CX | 10 oz. aerosol can* | 0.8 ... | \$8.99 | \$7.99 |

ECOLINE Flux Remover **SALE**

- Dissolves R, RMA, RA, SA & most no-clean fluxes

| Part No. | Description | Wt. (lbs.) | 1 | 12 |
|----------|----------------------|------------|--------|--------|
| 118041CX | 10 oz. flux remover* | 0.8 ... | \$9.49 | \$8.55 |

ECOLINE Contact Cleaner

- Ideal for switches, relays & other places on electrical connections
- Will not damage switch housings

| Part No. | Description | Wt. (lbs.) | 1 | 12 |
|----------|-------------------------|------------|--------|--------|
| 118033CX | 10 oz. contact cleaner* | 0.9 ... | \$8.95 | \$7.95 |

TechClean® Wiper

This hydro-entangled cellulose/polyester wipe has high absorbency with extra-low particulate and chemical extractables.

| Part No. | Description | Wt. (lbs.) | 1 | 12 |
|----------|--------------|------------|---------|---------|
| 263564CX | 100 sheet/pk | 1.1 | \$15.59 | \$14.25 |

Isopropyl Alcohol

99.8%+ pure, anhydrous isopropanol for all-purpose cleaning. Excellent for tape head cleaning, removal of fluxes, light oils, polar soils, and white mineral residue.

| Part No. | Description | Wt. (lbs.) | 1 | 12 |
|----------|---------------|------------|--------|--------|
| 263572CX | 1 pint bottle | 1.1 | \$7.35 | \$6.69 |

*Shipped via UPS ground to continental U.S. only

DATAK Photo Etch™ Printed Circuit Kit

Generate your own 1:1 artwork. Then use the patented Fast Neg film process to make a photo negative and sensitize and expose a blank copper board. Finish by developing & etching. No camera or darkroom is required.



| Part No. | Product No. | Wt. (lbs.) | 1 | 10 |
|----------|-------------|------------|---------|---------|
| 16731CX | 12-750* | 4.6 | \$39.95 | \$36.95 |

DATAK Dry Concentrated Etchant

- Makes one pint of etch solution

| Part No. | Product No. | 1 | 10 | 25 |
|----------|-------------|--------|--------|--------|
| 70201CX | ER3 | \$3.95 | \$3.49 | \$2.95 |

*Shipped via UPS ground to continental U.S. only

Fine-L-Kote™ Silicone Conformal Coating

A type SR silicone resin conformal coating that has excellent moisture and fungus resistance properties offers chemical resistance and is recommended for harsh environments. Contains Opti/Scan™ to allow for black light inspection.

| Part No. | Description | Wt. (lbs.) | 1 | 12 |
|----------|---------------------|------------|---------|---------|
| 263548CX | 12 oz. aerosol can* | 1.0 | \$16.79 | \$15.95 |

Fine-L-Kote™ Urethane Conformal Coating

As a urethane coating, this is highly resistant to most solvents, moisture, fungus, and molds. A clear, repairable coating, it is formulated with a black light indicator Opti/Scan, to provide checks for conformity in quality control.

| Part No. | Description | Wt. (lbs.) | 1 | 12 |
|----------|---------------------|------------|---------|---------|
| 263556CX | 12 oz. aerosol can* | 1.0 | \$15.45 | \$14.69 |

Flux Remover Pen

A unique combination of hydrocarbon solvents and alcohols makes it an excellent defluxer. This can also be used as an all-purpose cleaner for removal of light oils, silicones, waxes, greases, and similar contaminants.

| Part No. | Product No. | Wt. (lbs.) | 1 | 12 |
|----------|-------------|------------|--------|--------|
| 263724CX | 11.5 ml pen | 0.1 | \$6.19 | \$5.61 |

Conductive Pen

Contains a fast-drying, silver-filled ink designed to quickly make highly conductive silver traces.

- Repairs traces
- Makes smooth jumpers
- Links components
- Shields components

| Part No. | Description | Wt. (lbs.) | 1 | 12 |
|----------|-------------|------------|---------|---------|
| 263716CX | 4.89 ml pen | 0.1 | \$12.69 | \$12.05 |

Overcoat Green Pen

Designed to insulate printed circuit board traces and components against high voltage arcing, and provides protection from moisture. Configured for rework and repair where precision application is necessary.

- Protects conductive pen traces
- Repairs permanent solder mask

| Part No. | Description | Wt. (lbs.) | 1 | 12 |
|----------|-------------|------------|--------|--------|
| 263732CX | 5 ml pen | 0.1 | \$9.85 | \$9.36 |

Acid Brush

- Used for application of reactive solvents

| Part No. | Description | 1 | 10 | 100 | 1000 |
|----------|------------------|--------|--------|--------|--------|
| 153322CX | Metal handle, 6" | \$0.65 | \$0.59 | \$0.45 | \$0.31 |

DATAK Pre-Sensitized Circuit Boards & Developer

- Pre-coated circuit board 156751CX
- Size: 3.0"L x 4.0"W x 1/16" T

Includes: Instructions

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------------|--------|--------|--------|
| 156751CX | Single sided | \$4.95 | \$4.49 | \$3.95 |
| 156742CX | Double sided | 6.49 | 5.85 | 5.25 |
| 156734CX | 4 oz. Pos. developer* | 6.95 | 5.95 | 4.95 |

*Shipped via UPS ground to continental U.S. only

3X, 3-Bulb Adjustable Magnifying Lamp

Adjustable rectangular 3-diopter lens allows independent movement of the lens for best lighting and viewing angles. Three 9-watt compact fluorescent bulbs located to the side and top of the lens provide superior lighting to your workspace or job at hand. The integral spring-balance arm reduces the chance of pinched hands from springs, and provides a sleek clean look.

- 47" long arm
- 2 on/off buttons
- Color: beige
- UL listed

| Part No. | Description | 1 | 10 | 25 |
|----------|----------------------|---------|---------|---------|
| 217517CX | Adj. magnifying lamp | \$79.95 | \$74.95 | \$69.95 |

Tweezers with 8X Magnifier

The perfect combination hand tool for professionals working with small objects. Magnifying glass stays in perfect focus with tweezer heads.

- Stainless steel construction
- Precision tip tweezers
- 1.2" diameter 8 diopter lens
- Length: 3.8"

| Part No. | Description | 1 | 5 |
|----------|-------------------|--------|--------|
| 217824CX | Tweezer magnifier | \$6.29 | \$5.99 |

Wide View 2X Foldable Magnifier

This folding 2X magnifier is very popular among professionals needing a large-view magnifier plus the convenience of portability. Made of high-quality plastic, the frame is light with a precision glass lens. Easy-to-read scales in inches (scale of 1/16") and millimeters are etched on the base.

- Size (unfolded): 6.1"W x 5.3"D x 6.5"H

| Part No. | Description | 1 | 10 |
|----------|--------------------|---------|---------|
| 218296CX | Foldable magnifier | \$10.95 | \$10.39 |

General Purpose Illuminated 3X Magnifier

- 75mm diameter lens
- Great for magnifying fine print
- Light requires 2 AA batteries, see below
- Size: 7.5"L x 3.75"Dia.

| Part No. | Description | 1 | 10 | 25 |
|----------|--------------------------|--------|--------|--------|
| 149542CX | Illuminated magnifier | \$3.95 | \$3.56 | \$3.20 |
| 151087CX | 1.5V AA battery (req. 2) | .22 | .21 | .20 |

We'll Send It Today!



Over 99% of our products are in stock!
Just place your order by 6PM EST for same business day shipment.

3X Magnifying Lamps

- 45" extension arm
- Supplied with 22-watt circuline tube
- New wire clip design permits easy installation
- Extra strong, all-metal mounting base with electrical outlet
- Metal bulb holder for extra protection
- Power requirement: 110VAC/60Hz
- 3X magnification • Weight: 7.3 lbs.

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------|---------|---------|---------|
| 100829CX | Black lamp | \$59.95 | \$53.95 | \$49.95 |
| 149981CX | White lamp | 59.95 | 53.95 | 49.95 |

Standard Adjustable 3X Magnifying Lamp

- 4" Diameter lens
- Maneuverable 30" arm extension
- Lamp tilts or turns in any direction
- Uses 60W incandescent bulb (not included)
- 3X magnification
- Power requirement: 110VAC/60Hz
- Weight: 2.9 lbs.

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------|---------|---------|---------|
| 22710CX | Magnifying lamp | \$26.49 | \$25.19 | \$23.89 |

Precision 5X Magnifying Lamp

The arm extends to 40", is adjustable to any direction or angle, and has a 5X magnifying glass with built-in light. This is the perfect tool to help identify small electronic components and magnify a printed circuit board to help solder electronic components.

- 5" diameter lens • Weight: 7.1 lbs.
- Power requirement: 110VAC/60Hz

Includes: 22W circuline fluorescent bulb

| Part No. | Description | 1 | 10 | 25 |
|----------|-----------------|----------|---------|---------|
| 197456CX | Magnifying lamp | \$109.95 | \$98.95 | \$88.95 |

3X Magnifier with Adjustable Stand

- Heavy duty steel base
- Size: 15"L (full stand) x 4"Dia. (base)

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-------------|------------|---------|---------|
| 148881CX | Magnifier | 2.5 | \$11.95 | \$10.76 |

Flexible Neck Magnifier

Never squint again on small fine prints or have a hard time holding a magnifying glass at the same time holding two other tools with only two hands. Just simply clamp the magnifying lens on to a table or workbench and adjust the flexible gooseneck into position.

- 3.5" diameter & 3x diopter lens
- Arm length: 20"

| Part No. | Description | Price |
|----------|-------------------------|---------|
| 239548CX | Flexible neck magnifier | \$12.99 |

For Our Complete Selection of Tools
see pages 176 - 187.

Super Bright, Super Reliable LED Flashlights

The perfect tool for individuals who really depend upon a flashlight that always works. Containing space-age solid-state circuitry, batteries last 14 times longer than conventional flashlights and function continuously up to one month. Its super bright white LEDs will last at least 11 years.

- Waterproof, designed for all weather conditions
- Shockproof, withstands a drop from 4'
- Low cost per hour of operation
- Industrial grade switch, rated for 10,000 operations
- Rubber over-molding

215677CX: One month continuous operation using three "D" cell batteries (not included, P/N 215845CX, pg 157)

215685CX: 25-days continuous operation using three "C" cell batteries (not included)

215693CX: 14-days continuous operation using three "AA" cell batteries (not included, P/N 198707CX, pg 157)

262422CX: 210 hours of continuous operation using 3 "AAAA" batteries (included)

261972CX: Headtorch delivers 330 hours of continuous operation using 3 "AA" batteries (not included, use P/N 198707CX, pg 157)

| Part No. | Prod. No. | LEDs | Length | 1 | 10 |
|----------|-------------|------|--------|---------|---------|
| 215677CX | LW-4000 | 10 | 10.6" | \$63.95 | \$60.79 |
| 215685CX | LW-3000 | 7 | 8.9" | 53.95 | 51.29 |
| 215693CX | LW-2100 | 4 | 7.9" | 33.95 | 32.29 |
| 262422CX | LW-TEC10001 | — | — | 21.80 | 20.55 |
| 261972CX | LW-HT | 4 | — | 37.95 | 34.16 |

Digital Display Calipers

Metric or Inches

- Hardened stainless steel
- Display: inches to 1/1000THS mm to 1/100THS
- Resolution: 0.01mm (0.0005")
- Instructions for making internal, external, depth and step measurements
- Calipers measure to 6 inches/150mm
- Weight: 0.8 lbs. • One-year warranty

Includes: Fitted case and 1.5V silver oxide battery (replacement battery, P/N 140783CX, pg 157)

| Part No. | Description | 1 | 10 | 25 |
|----------|------------------------|---------|---------|---------|
| 127482CX | Digital disp. calipers | \$64.95 | \$58.46 | \$52.61 |

See pages
157 - 159
for Batteries.



Surfboards®

SOT-23
 3-MM
 4-MM
 0605, 1206
 STRADDLE

Ideal for Prototyping!

207407CX

Mini Breadboards for Surface Mount Devices

6000/6100 Series for Discrete Devices

- Universal large foil pattern areas accept a wide range of device footprints or can be modified to accept new footprints • 0.1" pin spacing • Height: 0.5"

| Part No. | Product No. | Pins | Width | 1 | 10 |
|----------|-------------|------|-------|--------|--------|
| 207423CX | 6103 | 3 | 0.3" | \$1.25 | \$1.09 |
| 207407CX | 6008 | 8 | 0.8" | 2.15 | 1.89 |
| 207431CX | 6109 | 9 | 0.9" | 2.25 | 1.99 |
| 207415CX | 6010 | 10 | 1.0" | 2.29 | 1.95 |

9000 Series for ICs

- Adapt SMD to thru-hole
- Size: 1.20"W x 0.65"H
- 207378CX/207394CX: 0.1" pin spacing

| Part No. | Product No. | 1 | 10 |
|----------|---------------------------|--------|--------|
| 207360CX | 9081 (For 8-pin SOIC) | \$1.25 | \$1.05 |
| 207378CX | 9082 (For 8-pin SOIC) | 3.55 | 3.10 |
| 207386CX | 9161 (For 14/16-pin SOIC) | 1.75 | 1.50 |
| 207394CX | 9163 (For 14/16-pin SOIC) | 5.45 | 4.79 |

Application Specific Adapters

33000 series SURFBOARDS® convert SMD component footprints to SIP format. Compatible with conventional and solderless breadboards & sockets (.100" center pins).

| Part No. | Product No. | Accepted Devices | Pins | 1 | 10 |
|----------|-------------|----------------------------------|------|--------|--------|
| 207589CX | 33205 | SOT-23-5/SC59-5 | 5 | \$1.55 | \$1.39 |
| 207597CX | 33206 | SOT-23-6/SOT-23-L/SC-59-6/TSOP-6 | 6 | 1.75 | 1.54 |

Vacuum Tweezers

Pick & place small parts of all kinds: glass slides, coins, optics, SMDs, film, etc.

- Size: 2.9"L x 0.6"W • One-year warranty

Includes: 5 pads sizes 0.14" to 0.4"; 5 straight tips and 2 pieces 45° angle tips

| Part No. | Description | 1 | 10 |
|----------|-------------------------|---------|---------|
| 88268CX | Vacuum pick & place kit | \$29.95 | \$26.95 |

4-Piece Conductive SMD Tweezer Set

- 4 types of tweezers: fine point, flat head for 4mm SMD chip device, flat head for 8mm SMD chip device, sharp angled tip • Each is 4.5" long

| Part No. | Description | 1 | 10 | 25 |
|----------|------------------------------------|---------|---------|--------|
| 172638CX | 4-piece conductive SMD tweezer set | \$11.95 | \$10.95 | \$9.95 |

PLCC Surface Mount and DIP IC Extractors

- Size: 4.0"L x 2.0"W (both)

| Part No. | Product No. | Description | 1 | 10 | 100 |
|----------|-------------|-------------------|--------|--------|--------|
| 16766CX | HT103B | PLCC IC extractor | \$3.95 | \$3.55 | \$3.19 |
| 16838CX | HT103A | DIP IC extractor | 1.49 | 1.25 | 1.09 |

ISA Printed Circuit Prototyping Boards

Printed circuit prototyping boards for virtually any application – including those requiring high component densities and solder or wire wrap connections. All boards are manufactured to precise standards and specifications. All bus and circuit patterns are solder-coated for user convenience.

- Edge contacts: gold

| Part Number | Product Number | Description | Size (Inches) W x L | Terminals (pg 220) T44 T49 T421 | I/O Connector (not included) | Hole Pads | # Holes x Dia. | Power/ Ground Bus | # Mounting Holes x Dia. | Weight (lbs.) | Pricing 1 10 25 |
|-------------|----------------|-----------------|------------------------|------------------------------------|---------------------------------|----------------|-------------------|----------------------|----------------------------|------------------|-------------------------|
| 21531CX | JE417 | PC/XT 8-bit | 4.2 x 6.50 | yes yes yes | D-sub 9, 15, 25 & 37 | Plated through | 2126 x .042" | 2 | 8 x .120" | .12 | \$19.95 \$16.99 \$14.65 |
| 28206CX | PCB4 | PC/XT/AT 16-bit | 4.25 x 13.13 | yes yes yes | D-sub 9, 15 & 25 | Plated through | 4890 x .042" | 2 | 4 x .120" | .23 | 24.95 23.69 21.85 |

BELLIN DYNAMIC SYSTEMS, INC.

Surface Mount Proto Boards

Prototyping SMT circuit boards has been tedious and time-consuming because surface mount devices are so small. Now there is an easy, cost-effective and versatile Snap-Apart solution from Bellin Dynamic Systems.

- Quality silk-screened and solder-masked boards
- V-groove scoring between elements for smooth straight edges
- Compatible w/ .100" single or dual row male headers (see pg 81)
- Size: 7.6"L x 5.0"W • Board thickness: 0.031"
- See our website (www.Jameco.com) for additional specifications

Small SMT

| Part No. | Prod. No. | Description | 1 | 10 |
|----------|-----------|---|---------|---------|
| 215491CX | B502 | 160 SMT pattern, SOT/SOIC/TSOP/MSOP/DPAK & more | \$45.95 | \$41.35 |
| 227344CX | B513 | 300 SMT pattern, SC90, SOT23-6, 323-6, TSOP, MSOP8, 10+ | 45.95 | 41.35 |

SOIC

| | | | | |
|----------|------|--|---------|---------|
| 215520CX | B505 | 60 SOIC SMT pattern, SOIC 8, 14, 16, 24, 32, 40 & more | \$45.95 | \$41.95 |
| 227310CX | B510 | 140 SMT pattern, SOIC 8 to DIP .300" width | 45.95 | 41.35 |
| 227328CX | B511 | 63 SMT pattern, SOIC n/w/d 8, 14, 16, 18, 20 to DIP .300" | 45.95 | 41.35 |
| 227352CX | B514 | 72 SMT pattern, SOIC narrow 8, 14, 16, 18, 20 to DIP .300" | 45.95 | 41.35 |
| 227361CX | B515 | 30 SMT pattern, SOIC 24, 28, 32 to DIP .600" width | 45.95 | 41.35 |

Fine Pitch Dual Row

| | | | | |
|----------|------|--|---------|---------|
| 215503CX | B503 | 34 SMT pattern, SOIC/QSOP/TSOP/MSOP/TSSOP & more | \$45.95 | \$41.35 |
| 227281CX | B507 | 40 SMT pattern, SSOP/TSSOP 16, 20, 32, 40 & more | 45.95 | 41.35 |

Quad

| | | | | |
|----------|------|---|---------|---------|
| 215511CX | B504 | 25 SMT pattern, QFP32, 44, 48, 52, 54, 64, 70, 80, 100 PLCC18, 20, 28, 32, 44 | \$45.95 | \$41.35 |
| 227336CX | B512 | 24 SMT pattern, PLCC18, 20, 22, 28, 32, 44, 52, 68, 84 & 100 | 45.95 | 41.35 |

PCB Connector (0.062" thick through-hole)

| | | | | |
|----------|------|--|---------|---------|
| 227272CX | B506 | 45 SMT pattern, USB A, B/1394/RJ11, 12, 45/DB9 PCB conn. | \$45.95 | \$41.35 |
|----------|------|--|---------|---------|

PitchStick™

| | | | | |
|----------|------|---|---------|---------|
| 227299CX | B508 | 20 SMT pattern, 48 inline pads, metric/rare pitches | \$45.95 | \$41.35 |
| 227301CX | B509 | 20 SMT pattern, 48 inline pads, 50 & 25 mil pitches | 45.95 | 41.35 |

CHIPQUIK SMD 2000 Removal System

Complete Solder/Desolder Rework Kit

- Removal alloy, solder paste, 3" solder, paste flux, liquid flux remover/cleaner, handi vac, 2 acid brushes, precision tweezers, six 4" x 4" cleaning wipes, 10 swabs, 6 alcohol pads, SMD removal/clean up instructions, stainless steel probe kit & 5' solder wick

| Part No. | Description | 1 | 10 |
|----------|-------------------------|---------|---------|
| 208055CX | SMD 2000 removal system | \$99.95 | \$94.99 |

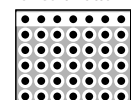
CHIPQUIK SMD Removal Kit

- Quick and easy to use
- Potential damage to printed circuit boards is eliminated
- 2.5" of CHIPQUIK® material removes 1250-1500 SMD pins
- Uses simple equipment and materials for application & clean-up

| Part No. | Description | 1 | 10 |
|----------|-----------------|---------|---------|
| 141305CX | SMD removal kit | \$21.95 | \$19.75 |

See page 109 for Circuit Board Mounting Hardware and page 110 for Round & Hex Aluminum Spacers and Standoffs.

Circuit Pattern



Power/Ground Perimeter Bus with Pad Per Hole



21531CX



28206CX

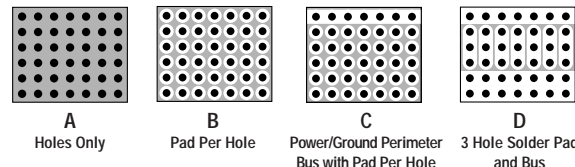
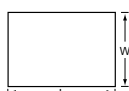
General Purpose Prototyping Boards

Select the prototype board that fits your needs from our comprehensive product listing. Prototyping boards with punched holes are convenient, economical tools for assembling circuit components and trying cost-effective alternatives to custom designs.

- 0.062" board thickness
- 0.1" hole spacing
- 0.08" pad size
- Plated through pads are double-sided
- PCB material epoxy glass



Board Outline



See pg 109 for PCB mounting enclosures and hardware (recommend P/N 106551CX)

| Part Number | Product Number | Size (W" x L") | Fits Enclosure(s) (see page 109) | Circuit Pattern | Hole Pads | # Holes x Dia. ↑ | Power/Ground Busses | Connector I/O or Edge | # Mounting Holes x Dia. | Weight (lbs.) | Pricing | | | |
|-------------|----------------|----------------|----------------------------------|-----------------|----------------|------------------|---------------------|-----------------------|-------------------------|---------------|---------|--------|--------|--------|
| | | | | | | | | | | | 1 | 10 | 50 | 100 |
| 105099CX | 2855PCB | 1.60 x 2.70 | 18921CX | B | Single-sided | 288 x .035" | None | None | 2 x .115" | .02 | \$5.25 | \$4.73 | \$4.25 | \$3.83 |
| 105101CX | 5002PCB | 1.50 x 3.50 | 11957CX | C | Single-sided | 365 x .038" | 4 | None | 2 x .140" | .02 | 6.95 | 6.25 | 5.59 | 4.95 |
| 263185CX | PCB-403 | 1.80 x 3.10 | 18921CX | B | Plated through | 300 x .042" | None | None | 4 x .115" | .03 | 6.95 | 6.25 | 5.63 | 5.09 |
| 105128CX | 2853PCB | 2.00 x 4.40 | 18913CX, 11965CX | C | Single-sided | 669 x .038" | 4 | None | 4 x .140" | .03 | 7.95 | 6.95 | 6.25 | 5.59 |
| 105110CX | 2300PCB | 2.40 x 3.40 | 11869CX | C | Single-sided | 637 x .038" | 4 | None | 2 x .140" | .03 | 7.95 | 6.95 | 6.25 | 5.59 |
| 263206CX | PCB-463 | 2.40 x 4.10 | N/A | B | Plated through | 640 x .042" | None | None | 4 x .120" | .05 | 8.95 | 8.09 | 7.25 | 6.55 |
| 28177CX | PCB1 | 2.42 x 4.10 | 18913CX | C | Plated through | 674 x .040" | None | None | 4 x .120" | .04 | 5.95 | 5.35 | 4.79 | 4.29 |
| 263214CX | PCB-858 | 2.50 x 4.50 | 18913CX | B | Plated through | 640 x .042" | None | None | 4 x .120" | .05 | 8.95 | 8.09 | 7.25 | 6.55 |
| 105152CX | 2851PCB | 3.10 x 5.50 | 18892CX | C | Single-sided | 1450 x .035" | 7 | None | 4 x .140" | .07 | 9.95 | 8.95 | 7.95 | 6.95 |
| 263222CX | PCB-69 | 3.30 x 3.70 | N/A | B | Single-sided | 900 x .042" | None | None | 4 x .120" | .05 | 8.95 | 8.09 | 7.25 | 6.55 |
| 105136CX | 2320PCB | 3.30 x 4.50 | 11885CX | C | Single-sided | 1266 x .035" | 4 | None | 4 x .140" | .06 | 9.95 | 8.95 | 7.95 | 6.95 |
| 105161CX | 2852PCB | 3.60 x 7.00 | 18905CX, 11973CX | B | Single-sided | 2225 x .035" | 4 | None | 4 x .140" | .10 | 14.95 | 13.45 | 11.95 | 10.95 |
| 206586CX | 2746APCB | 4.30 x 6.80 | 209349CX | C | Single-sided | 2550 x .042" | 5 | None | 4 x .140" | .07 | 10.95 | 9.86 | 8.87 | 7.98 |
| 21434CX | JE401(8001) | 4.50 x 6.50 | 18868CX | B/D | Single-sided | 2360 x .042" | 2 | None | None | .12 | 21.95 | 19.76 | 17.78 | 16.00 |
| 21451CX | JE405(8003) | 4.50 x 6.50 | 18868CX | C | Single-sided | 2360 x .042" | 1 | None | None | .12 | 19.95 | 17.95 | 14.36 | 10.77 |
| 43140CX | 64P44XXP* | 4.50 x 6.50 | 18868CX | A | Drilled only | 2860 x .042" | None | None | None | .09 | 5.99 | 5.65 | 5.49 | 5.19 |
| 52943CX | 84P44WE | 4.50 x 8.50 | 18876CX | A | Drilled only | 3740 x .042" | None | None | None | .15 | 9.39 | 8.79 | 8.49 | 8.29 |
| 37604CX | 169P44WE | 4.50 x 17.0 | N/A | A | Drilled only | 7524 x .042" | None | None | None | .31 | 16.19 | 14.19 | 13.99 | 13.69 |
| 37612CX | 169P44XXP* | 4.50 x 17.0 | N/A | A | Drilled only | 7524 x .042" | None | None | None | .25 | 11.19 | 10.39 | 9.99 | 9.69 |
| 206578CX | 2743APCB | 4.60 x 4.30 | 208910CX | C | Single-sided | 1684 x .042" | 5 | None | 4 x .140" | .07 | 7.49 | 6.74 | 6.07 | 5.46 |
| 105179CX | 2505PCB | 5.00 x 6.50 | 11893CX, 18868CX | C | Single-sided | 2829 x .035" | 7 | None | 8 x .120" | .13 | 14.95 | 13.49 | 11.95 | 10.95 |
| 28193CX | PCB3 | 5.00 x 8.00 | 18876CX | C | Plated through | 3705 x .042" | 4 | Mounting area-I/O | 4 x .120" | .17 | 21.95 | 19.76 | 17.78 | 16.00 |
| 21477CX | JE407(8006) | 5.00 x 13.25 | N/A | B | Plated through | 6063 x .038" | None | None | 8 x .120" | .28 | 41.19 | 37.07 | 33.36 | 30.03 |
| 206594CX | 2747APCB | 5.50 x 8.00 | 209357CX | C | Single-sided | 3906 x .042" | 5 | None | 4 x .140" | 1.0 | 14.99 | 13.49 | 12.14 | 10.93 |
| 105187CX | 2507PCB | 6.10 x 8.80 | 18876CX | C | Single-sided | 4771 x .035" | 7 | None | 8 x .140" | .21 | 29.95 | 26.95 | 23.95 | 21.95 |
| 263231CX | PCB-7038 | 8.30 x 11.9 | N/A | B | Plated through | 8819 x .042" | 10 | 5 | 4 x .115" | .40 | 55.95 | 52.19 | 49.59 | 47.09 |
| 37621CX | 169P84WE | 8.50 x 17.0 | N/A | A | Drilled only | 14,448 x .042" | None | None | None | .53 | 23.95 | 22.75 | 21.59 | 20.49 |
| 263249CX | PCB-6088 | 9.20 x 13.0 | N/A | B | Plated through | 11,000 x .042" | 10 | None | 13 x .115" | .50 | 55.95 | 52.19 | 49.59 | 47.09 |

* PCB material: phenolic

↑ All 0.042" diameter hole boards use terminals T44, T49, and T421 (see below)

Wire Wrap and Push-In Terminals

For .042" Diameter Holes

Specifications:

- Material: copper alloy • Prebagged 100 pcs.

34147CX: Push-In Micro-Klip Terminals

- Overall length: .36" • Post size: .032" x .045"

34155CX: Miniwrap Wiring Terminals • Shoulder: .045"

- Two-prong with square tail for wire wrapping

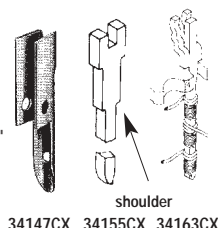
- Overall length: .69" • Post size: .025"Sq.

34163CX: Klipwrap Wiring Terminals • Shoulder: .045"

- Three-prong with square tail for wire wrapping

- Overall length: .83" • Post size: .025"Sq.

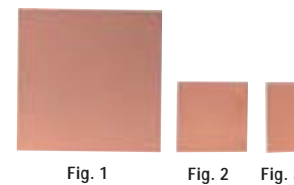
| Part Number | Mfr. Cross Ref. No. | Height Above .062" Board | Length Below .062" Board | 100 pc. units | |
|-------------|---------------------|--------------------------|--------------------------|---------------|--------|
| | | | | 1 | 10 |
| 34147CX | T421 | .200 | .097 | \$7.29 | \$6.95 |
| 34155CX | T44 | .065 | .530 | 7.99 | 7.49 |
| 34163CX | T49 | .200 | .530 | 11.79 | 11.19 |



Copper-Plated Blank Circuit Boards

Ideal for hobbyists and students doing prototypes of circuits. Copper plating on board for either single-sided or double-sided boards.

- 1.6mm thickness



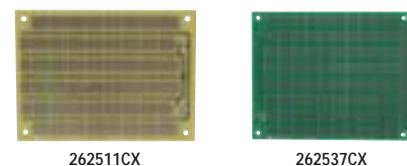
| Single-Sided | | | | | | | |
|--------------|-------------|----------------|------|------------|--------|--------|--------|
| Part No. | Product No. | Size (L" x W") | Fig. | Wt. (lbs.) | 1 | 10 | 50 |
| 169279CX | PCBS3X6 | 3.0 x 6.0 | 3 | 0.1 | \$3.49 | \$3.15 | \$2.85 |
| 169287CX | PCBS6X6 | 6.0 x 6.0 | 2 | 0.2 | 4.95 | 4.49 | 3.95 |
| 169295CX | PCBS12X12 | 12.0 x 12.0 | 1 | 0.5 | 13.49 | 12.14 | 10.93 |
| Double-Sided | | | | | | | |
| 169308CX | PCBD3X6 | 3.0 x 6.0 | 3 | 0.1 | \$5.25 | \$4.73 | \$4.25 |
| 169316CX | PCBD6X6 | 6.0 x 6.0 | 2 | 0.2 | 7.95 | 7.15 | 6.45 |
| 169324CX | PCBD12X12 | 12.0 x 12.0 | 1 | 0.7 | 17.95 | 15.95 | 14.49 |

PT Series Prototyping Boards

Designed to accommodate any mixture of 0.3" to 0.6" wide IC's with any number of pins, as well as any combination of resistors, capacitors, diodes, transistors, etc.

- 4 power busses that connect to a power jack (recommended P/Ns 101178CX, 101186CX & 265421CX, pg 83)

| Part No. | Mfr. Cross Ref. No. | Size | Hole Pads | # Holes x Dia. | # Mntg Holes x Dia. | 1 | 5 | 10 |
|----------|---------------------|-------------|--------------|----------------|---------------------|---------|---------|---------|
| 262511CX | PT-5X37 | 5"L x 3.7"W | Double-sided | 1267 x .036" | 4 x .140" | \$24.75 | \$22.95 | \$21.79 |
| 262537CX | PT-6X49 | 6"L x 4.9"W | Double-sided | 1267 x .036" | 4 x .140" | 32.49 | 30.89 | 29.35 |



These long-lasting solderless breadboards feature screen-printed color coordinates suitable for many types of digital and analog prototyping and circuit design. Larger models feature a heavy-duty aluminum backing with binding posts. Use Jameco's AC/DC breadboard power supply, P/N 77681CX (pg 222).

- Accepts most electronic components, including integrated circuits and transistors for digital and/or analog circuitry • 0.1" hole spacing
- Pins are identified by numbered rows and columns
- Ideal for high frequency and low noise circuits
- One-year warranty * WBU5 and JE series do not interconnect



20757CX



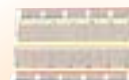
20773CX



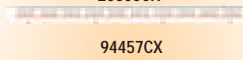
20790CX



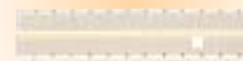
20811CX



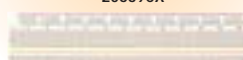
20600CX



94457CX



20669CX



20722CX



136901CX



77825CX

Attention Educators! Buy jumper wire (pg 222) in bulk and SAVE! (see Hook-up Wire on page 59)

WBU5 Series Key Features:

- Horizontal assembly corresponds to the operation flow design of the PC boards for handy operation
- Round hole design makes the electric connection better
- Formed with V-shaped cross-sectional groove, which allows DIP IC pins to be inserted across two parts and to increase the rate of utilization due to small pitch
- Dovetail protrusions and recesses designed to connect two adjacent parts tightly together

JE Series Key Features:

- Use to breadboard and debug circuit designs
- Low static, plastic body – CMOS safe
- Nickel-plated clips designed to withstand up to 5,000 insertion cycles
- Breadboard strips connect together to form larger working areas
- Components are easily interconnected using 20-28 AWG wire (P/N 19289CX & 20079CX, pg 222)
- Some models feature heavy-duty aluminum backings (JE24, JE27, WBU504)

| Part Number | Product Number* | Terminal Strips | Bus Strips | Contact Points | Binding Posts | Breadboard Size L" x W" | Baseplate Size L" x W" | Weight (lbs.) | Pricing | | | |
|-------------|-----------------|-----------------|------------|----------------|---------------|-------------------------|------------------------|---------------|---------|--------|--------|--------|
| | | | | | | | | | 1 | 10 | 50 | 100 |
| 94457CX | JE19 | 0 | 1 | 100 | 0 | 6.5 x 0.4 | — | 0.04 | \$2.95 | \$2.65 | \$2.39 | \$2.15 |
| 20600CX | JE21 | 1 | 2 | 400 | 0 | 3.3 x 2.1 | — | 0.13 | 5.25 | 4.73 | 4.25 | 3.83 |
| 20669CX | JE22 | 1 | 0 | 630 | 0 | 6.5 x 1.4 | — | 0.20 | 5.49 | 4.95 | 4.49 | 3.95 |
| 194280CX | JE35 | 1 | 1 | 740 | 0 | 6.9 x 2.1 | — | 0.23 | 9.95 | 8.99 | 8.09 | 7.25 |
| 194298CX | JE37 | 1 | 2 | 840 | 0 | 6.9 x 2.4 | — | 0.25 | 9.95 | 8.95 | 7.95 | 7.25 |
| 194255CX | JE38 | 1 | 2 | 970 | 4 | 2.9 x 5.6 | 4.9 x 6.3 | 0.50 | 16.95 | 15.25 | 13.75 | 12.35 |
| 20722CX | JE23 | 1 | 2 | 830 | 0 | 6.5 x 4.0 | 6.5 x 2.1 | 0.30 | 9.39 | 8.45 | 7.61 | 6.85 |
| 194271CX | JE34 | 2 | 3 | 1,560 | 3 | 6.5 x 4.0 | 8.5 x 4.7 | 0.73 | 15.95 | 14.39 | 12.95 | 11.65 |
| 20757CX | JE24 | 2 | 1 | 1,360 | 2 | 6.5 x 3.1 | 8.5 x 4.0 | 0.60 | 13.65 | 12.28 | 11.06 | 9.95 |
| 136901CX | WBU504* | 2 | 3 | 1,855 | 4 | 5.5 x 5.5 | 7.4 x 6.3 | 0.90 | 22.99 | 20.99 | 18.99 | 16.99 |
| 20773CX | JE25 | 2 | 4 | 1,660 | 3 | 6.5 x 4.3 | 8.5 x 5.1 | 0.80 | 19.95 | 17.95 | 16.16 | 14.54 |
| 20790CX | JE26 | 3 | 5 | 2,390 | 4 | 6.9 x 5.8 | 9.1 x 6.9 | 1.10 | 27.29 | 24.56 | 22.10 | 19.89 |
| 20811CX | JE27 | 4 | 7 | 3,220 | 4 | 7.3 x 7.5 | 9.5 x 8.3 | 1.40 | 33.59 | 30.23 | 27.21 | 24.49 |

| Part No. | Description | 1 | 10 | 25 |
|----------|--|---------|---------|---------|
| 77825CX | Breadboard pin to breadboard pin test leads (20 pk), 4 each color-coded (red, yellow, blue, black, white), 20 AWG wire, 5.9"L (15cm) | \$12.95 | \$11.69 | \$10.49 |

PLCC Prototype Adapters

PLCC socket mounted on a circuit board for easy wire wrap or design prototyping. Solder masked PCB with 0.25" long leads.



73550CX

- PCB construction
- Silkscreen numbers identify pin numbers in groups of 5 and 10 • Gold-plated round pins
- Tin-plated PLCC connector
- PLCC socket identifies pin 1 and orientation key
- PLCC socket slotted for PLCC chip remover

| Part No. | Pins | Size (L x W) | 1 | 10 | 100 |
|----------|------|-------------------|---------|---------|--------|
| 73541CX | 44 | 2.3" x 1.6" ... | \$11.95 | \$10.79 | \$9.69 |
| 73550CX | 68 | 3.4" x 1.6" | 15.95 | 14.49 | 12.95 |
| 73568CX | 84 | 4.3" x 1.9" | 23.95 | 21.59 | 19.45 |

PCI-Bus Extender Card

- PCI Bus
- Extends life of motherboard connectors
- Gold-plated fingers for long life
- Size: 5.9"L x 5.4"W



| Part No. | Description | 1 | 10 |
|----------|-----------------------------|---------|---------|
| 141381CX | PCI-bus extender card | \$74.95 | \$67.49 |

PCI-Bus Prototype Board

- All plated through holes
- 0.1" hole spacing
- 50 Mil power and ground grids
- Provision for wire wrap and bypass caps
- Impedance matched to bus specifications
- Easy access to every signal on the bus
- Size: 12.4"L x 5.0"W • Weight: 0.6 lbs.



SALE

| Part No. | Description | 1 | 10 |
|----------|-------------------------------|---------|---------|
| 141372CX | PCI prototype bus board | \$64.95 | \$58.46 |

Making Your Own Printed Circuit Board Book

JV Enterprises No darkroom or special equipment needed. Shows steps for drilling and shaping your printed circuit board and the materials you will need. (91 pages)

- Size: 8.5" x 11"
- Weight: 0.5 lbs.



| Part No. | Description | Price |
|----------|------------------------|---------|
| 141524CX | Making PCBs Book | \$19.95 |

8/16-Bit ISA Solderless Plug-In Breadboard

SALE

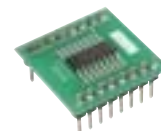


- IBM PC/XT/AT and higher compatible
- 62 data I/O lines and a DB25 female connector for interfacing to peripherals
- Twenty-four 14-pin IC capacity
- Clearly labeled bus lines • 2,352 contact points
- Durable construction • One-year warranty
- Size: 13.8"L x 5.0"W • Weight: 1.0 lb.

Easy PC/XT/AT Prototyping!

| Part No. | Description | 1 | 10 | 25 |
|----------|---------------------|---------|---------|---------|
| 81672CX | 8/16-bit breadboard | \$57.95 | \$52.16 | \$46.94 |

See page 219 for Jameco's surface mount prototyping boards.



Digital/Analog Design Labs

- Two 7-Segment Displays (digit height: 0.3")
- One-year warranty

Solderless Breadboard

- Interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

DC Power Supplies

- DC supplies equipped with short circuit protection
- Variable DC power: 0 to +15V & 0 to -15V @ 0.5A

Function Generator (5 ranges)

- Frequency range: 1Hz-10Hz, 10Hz-100Hz, 100Hz-1kHz, 1kHz-10kHz, 10kHz-100kHz
- Sine wave output: 0-8 Vp-p variable • Triangle wave output: 6Vp-p fixed • Square wave output: ±5V fixed



75838CX

Our most popular digital lab!



201890CX

| Part No. | Tie Points | Fixed Power Supply | Pulse Generator | Frequency Counter | Multimeter | Includes |
|----------|------------|--------------------|------------------------|-------------------|-------------------------------------|--|
| 75838CX | 1580 | ±5VDC @ 1.0A | No | No | DCV (Digital) | Power cord, manual |
| 201890CX | 2960 | ±5VDC @ 0.5A | 1Hz to 1MHz switchable | Yes | ACV, DCV, DCmA, resistance (analog) | Power cord, enclosed case, test lead, jumper wire kit, DB25 serial adapter, manual |

| Part No. | Description | Size (W" x D" x H") | Weight (lbs.) | 1 | 10 | 25 |
|----------|--------------------|--------------------------------|---------------|----------|----------|----------|
| 75838CX | Digital lab | 10.6 x 13.3 x 5.0 | 8.1 | \$276.95 | \$249.95 | \$226.95 |
| 201890CX | Digital/analog lab | 13.9 x 12.8 x 4.9 (back panel) | 11.8 | \$429.95 | \$389.95 | \$349.95 |

Digital-Analog Design Lab

Solderless Breadboard

- 2712 interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

DC Power Supplies

- Variable DC output: 0 to +15V & 0 to -15V @ 500mA
- Fixed DC output: +5VDC, 1A; -5VDC, 300mA
- Input power: 120/220VAC @ 50-60Hz (switchable)

- Frequency ranges: 1Hz-10Hz, 10Hz-100Hz, 100Hz-1kHz, 1kHz-10kHz, 10kHz-100kHz
- Sine wave output: 0-8 Vpp variable • Triangle wave output: 0-6 Vpp variable • Square wave output: 0-8 Vpp variable

Other features:

- 2 variable resistors: VR1=1kΩ, VR2=100kΩ • 8 data switches • 2.5" dia. 8Ω, 25W speaker
- 2 pulse switches (2 sets of outputs: A, A, B, B) • 2 banana sockets, 2 BNC jacks • One-year warranty
- Two 7-segment LED displays (digit height: 0.3") • 8 red LEDs with separate input terminals

Includes: Power cord and manual

| Part No. | Description | Size (W" x D" x H") | Weight (lbs.) | 1 | 10 | 25 |
|----------|--------------------|---------------------|---------------|----------|----------|----------|
| 136266CX | Digital-analog lab | 12.8 x 9.8 x 3.7 | 8.5 | \$379.95 | \$341.99 | \$307.79 |



International 120/220VAC Switchable

AC/DC Power Supply

Ideal for Breadboards on previous page



International 120/220VAC Switchable

Output Specifications:

- +5VDC @ 1A;
- -5V @ 300mA fixed;
- 0 to +15VDC @ 500mA variable;
- 0 to -15VDC @ 300mA variable;
- 12-0-0-6-12 tapped VAC, 300mA fixed

With built-in short-proof regulated power supplies.

- Input power: 120/220VAC @ 50-60Hz (switchable)
- Indicator lamps and power fuses
- Just plug-in and start to use
- Compact & lightweight
- For both digital and analog circuits
- Compatible with test leads P/N 77841CX, pg 208
- Size: 7.4"W x 5.5"D x 2.6"H • Color: beige
- Weight: 5.5 lbs. • One-year warranty

| Part No. | Description | 1 | 10 | 25 |
|----------|------------------|----------|----------|---------|
| 77681CX | Power supply ... | \$119.95 | \$109.95 | \$99.95 |

Powered Project Board

- Solderless breadboard with 2420 tie points
- DC power supplies: +5V @ 1A; variable power 0 to +15VDC and 0 to -15VDC @ 500mA
- Back panel has ground terminal
- Outputs are short-circuit protected
- Edge plate for non-DIP size components
- Input power: 120/220VAC @ 50-60Hz (switchable)
- Replacement fuse: P/N 103907CX, pg 57
- Power switch with light
- Breadboard size: 7.4"L x 6.8"W
- Enclosure size: 9.8"L x 8.0"W x 2.6"H
- Weight: 6.8 lbs. • One-year warranty

Includes: Power cord

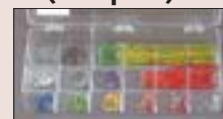


International 120/220VAC Switchable

| Part No. | Description | 1 | 10 | 25 |
|----------|--------------------|---------|---------|---------|
| 136258CX | Powered breadboard | \$99.95 | \$89.95 | \$87.95 |

Wire Jumper Kit (350 pcs.)

- 25 each of lengths 0.1" through 5.0" (14 sizes)
- 350 assorted lengths in 13 colors
- Pre-stripped/preformed 22 AWG solid wire jumpers



19289CX

19289CX: 350-piece wire jumper kit

- Handy, durable, clear plastic case
- 20079CX: 350-piece refill for 19289CX
- Case not included

| Part No. | Description | 1 | 10 | 50 | 100 |
|----------|------------------------|---------|---------|---------|---------|
| 19289CX | Wire jumper kit .. | \$15.95 | \$14.39 | \$12.95 | \$11.65 |
| 20079CX | Refill for 19289CX ... | 10.99 | 9.89 | 8.90 | 8.01 |

Reinforced Jumper Wires

- 24 AWG-300 volts
- Reinforced pin ends for durability
- 10 pack assortment: 2 each yellow, white, red, black & blue



126341CX

| Part Number | Mfr. Cross Ref. No. | Length (mm / inch) | 1 | 10 | 100 |
|-------------|---------------------|--------------------|--------|--------|--------|
| 126359CX | JW50 | 50 / 1.97 ... | \$3.95 | \$3.49 | \$2.95 |
| 126341CX | JW100 | 100 / 3.94 | 4.95 | 4.49 | 4.05 |
| 126324CX | JW200 | 200 / 7.87 | 5.19 | 4.69 | 4.25 |

Resistance and Capacitance Decade Substitution Boxes

Wide-range decade substitution boxes for product design or calibration checks.

EXTECH INSTRUMENTS

- Light durable construction
- Case may be grounded separately
- Three binding posts permit isolated substitutions
- Size: 4.7"W x 5.7"H x 1.4"D
- Weight: 0.7 lbs.



211668CX

- 211668CX: 1% resistance substitution from 1Ω to 11.111110MΩ
- 7 decade ranges of resistance
- Values can be changed in 1Ω increments



211676CX

- 211676CX: 5% capacitance substitution from 100pF to 11,111μF
- 5 decade ranges of capacitance

| Part No. | Description | 1 | 10 |
|----------|-------------------|---------|---------|
| 211668CX | Resistance | \$98.95 | \$93.95 |
| 211676CX | Capacitance | 128.95 | 122.45 |

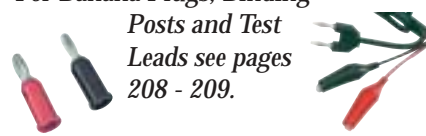
Over 99% of our products are in stock!

Just place your order by 6PM EST for same business day shipment.



We'll Send It Today!

For Banana Plugs, Binding Posts and Test Leads see pages 208 - 209.



microEngineering Labs LAB-X1 Experimenter's Module Board

The LAB-X1 is a pre-assembled experimenter's platform. It provides an assembled testbed containing most of the circuitry commonly used with PICmicro microcontrollers (MCUs). Many different projects may be created using the LAB-X1, including calculator, voltmeter, LCD backpack, tone dialer, and RC servo controller.



- 40-pin ZIF socket for PICmicro MCU (not included, PIC16F877-20/P recommended)
- Jumper selectable oscillator from 4MHz to 20MHz
- Reset button • 16 switch keypad • 3 potentiometers • LED bargraph
- 2 lines x 20 characters LCD module • Speaker • 2 RC servo connectors
- RS232 interface • Socket for RS485 interface (device not included)
- Socket for I2C & SPI serial EEPROM (device not included) • One-year warranty
- Socket for Microwire serial EEPROM (device not included)
- Socket for real time clock/serial analog to digital converter (devices not included)
- EPIC in-circuit programming connector • Prototyping area for additional circuit
- Wiring for microchip in-circuit debug connector • Size: 5.5" x 5.6"

Requires: AC adapter (below)

| Part No. | Description | 1 | 10 |
|----------|---|----------|----------|
| 169113CX | LAB-X1 Experimenter Board | \$199.95 | \$189.95 |
| 176903CX | LAB-X1 Experimenter Board Kit (unassembled) | 139.95 | 132.95 |
| 198168CX | LAB-X2 for 28 and 40-pin MCUs | 69.00 | 65.00 |
| 198176CX | LAB-X3 for 18-pin MCUs | 119.95 | 107.95 |
| 176882CX | PIC16F877-20/P microcontroller (pg 11) | 9.49 | 8.49 |
| 127976CX | AC adapter (details on page 150) | 4.75 | 4.29 |

microEngineering Labs

EPIC Plus PICmicro Programmer

The EPIC Plus Programmer quickly and easily programs the PIC12Cxxx, 12CExxx, 16C505, 16C55x, 6xx, 7xx, 84, 9xx, 16CE62x, 16F62X, 7x, 8x, 87x, 14C000, 17C7xx, 18Cxxx microcontrollers from Microchip. The basic programmer includes an 18-pin socket for programming 8, 14 and 18-pin PICmicro MCUs. Devices available separately on page 9.

- Simple installation with parallel port (printer) interface
- Interactive software for Windows and DOS
- Command line operation for automated, non-interactive programming
- PICmicro Assembler software included

Requires: Two 9V batteries or AC adapter (below)

| Part No. | Description | 1 | 10 |
|----------|--|---------|---------|
| 132679CX | EPIC Plus PICmicro programmer | \$59.95 | \$53.95 |
| 136397CX | 8/18/20-pin ZIF adapter | 34.95 | 31.95 |
| 132610CX | 40/28-pin ZIF adapter | 34.95 | 31.95 |
| 162317CX | AC wall adapter (16VDC/500mA, details on page 151) | 7.95 | 6.95 |
| 67256CX | 6' DB25 cable (details on page 71) | 6.45 | 5.79 |



Breadboarding with SMD

Ever tried to breadboard a circuit with a product that's only available in a surface mount package? It's not easy to pick up SMD, more difficult to solder wires and even tougher to prevent damage!

So rather than fighting the small package size, consider soldering the device to a breadboard adapter like the ones shown on page 219. You just plug the adapter into your solderless breadboard without losing any chip functionality.

Start creating your SMD prototyping library today — they'll be ready for your next great idea and all the rest to follow.



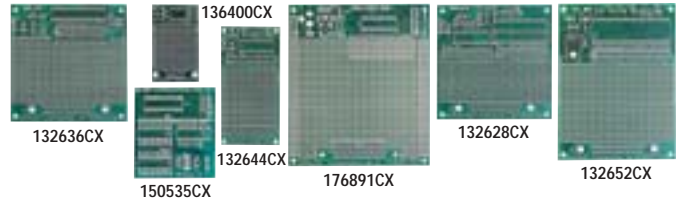
Practical Practices
Money Saving Tips for the Engineer

microEngineering Labs

"PICProto" Prototyping Boards

- High quality blank prototyping boards for PICmicro microcontrollers
- Holds microcontroller, 5V regulator, oscillator, capacitors and DB9-25 connector
- Double-sided board with plated-through holes • Large prototyping area
- Solder mask on both sides makes soldering easy • Silkscreen legend

Includes: Documentation sheet with schematic, suggested parts and placement



PICProto 18, 18L: For all 18-pin PICs including PIC16C52, 54, 56, 58, 55A, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, and 84

| Part No. | Description | Size (L" x W") | 1 | 10 |
|----------|--------------|----------------|--------|--------|
| 132644CX | PICProto 18 | 3.0 x 1.5 | \$9.95 | \$8.95 |
| 176891CX | PICProto 18L | 3.6 x 4.1 | 19.95 | 17.95 |

PICProto 3: For the 28-pin PIC16C62, 63, 642, 66, 72, 76, 773, 16F73, 76, 870, 872, 873, 876, 18C242, and 252

| | | | | |
|----------|------------|-----------|---------|---------|
| 132636CX | PICProto 3 | 3.0 x 3.0 | \$14.95 | \$13.49 |
|----------|------------|-----------|---------|---------|

PICProto 64: For the 40-pin PIC16C64, 65, 662, 67, 74, 77, 774, 16F74, 77, 871, 874, 18C422, and 452

| | | | | |
|----------|-------------|-----------|---------|---------|
| 132652CX | PICProto 64 | 4.0 x 3.0 | \$16.95 | \$14.95 |
|----------|-------------|-----------|---------|---------|

PICProto 8: For all 8-pin PIC12Cxxx and 12CExxx

| | | | | |
|----------|------------|-----------|--------|--------|
| 136400CX | PICProto 8 | 2.0 x 1.2 | \$8.95 | \$7.95 |
|----------|------------|-----------|--------|--------|

PICProto Dual: For 18-pin PIC16C52, 54, 56, 58, 55A, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, & 84, as well as 28-pin PIC16C55, & 57. Accepts standard 0.6" 28-pin device or 0.3" skinny DIP

| | | | | |
|----------|---------------------|-----------|---------|---------|
| 132628CX | PICProto Dual 18/28 | 3.0 x 3.0 | \$14.95 | \$13.49 |
|----------|---------------------|-----------|---------|---------|

PICProto S1: For working with circuits in "Easy Microcontrol'n" (pg 11) and "Microcontrol'n Apps" (pg 11). Holds 18-pin PICmicro, oscillator, 5-volt power supply, DIP switches, & socket to solderless breadboard

| | | | | |
|----------|-------------|-----------|---------|---------|
| 150535CX | PICProto S1 | 2.1 x 1.9 | \$13.50 | \$12.95 |
|----------|-------------|-----------|---------|---------|

microEngineering Labs

PICBasic and PICBasic Pro Compiler

PICBasic converts your BASIC programs into files that can be programmed directly into a PICmicro MCU.

- Compatible with most PICmicro MCU programmers including EPIC plus
- Use in DOS or Windows (includes Windows editor/DE software)
- I2C instructions to access external serial EEPROMs
- In-line assembler and call support

132661CX: PICBasic Compiler

- Expanded BASIC Stamp I compatible instruction set
- PEEK and POKE instructions to access any register from BASIC
- Serial speeds to 9600 baud
- Supports PC12C67x, PIC14Cxxx, PIC16C55x, 66x, 7xx, 84, 92x, and PIC16CF8xx microcontrollers
- May use up to 2k of code space

150543CX: PICBasic Pro Compiler

- Direct and library routine access to any pin or register
- Automation page boundary handling past 2K • Bit, byte, word arrays
- Real If...Then...Else...Endif • Hierarchical expression handling
- Interrupts in BASIC and assembler • BASIC Stamp I and II library
- Built-in LCD support • MPLAB/MPASM/ICE compatibility
- Supports 12C5xx, 12C67x, 12CE67x, 14C000, 16C5x, 16C55x, 6xx, 7xx, 84, 92x, 16CE62x, 16F62x, 7x, 8x, 87x, 17Cxxx, and 18Cxxx microcontrollers

| Part No. | Description | 1 | 10 |
|----------|-----------------------------|---------|---------|
| 132661CX | PICBasic compiler | \$99.95 | \$89.95 |
| 150543CX | PICBasic Pro compiler | 249.95 | 224.95 |



See pages 9 – 11 for our complete selection of
PIC Microcontrollers

XELTEK

Ultra-Fast 48-Pin USB & Stand-Alone Universal Programmer

- Fastest low-cost programmer in the market; programs high-density FLASH memory at near theoretical minimum programming time: (Intel 28F320W18 – 1.8 volts 32Mbit at 18 sec.; 13 sec. for programming & 5 sec. for verifying)
- Standard universal 48 pin-drivers support devices down to 1.5 volts; optional 100-pin expander module
- Currently 4,000 devices supported from 100+ manufacturers including memory, MCU, and PLD; 11,000+ by 1/1/2004
- Supports: EPROM, Paged EPROM, Parallel/Serial EEPROM, FPGA Configuration Serial PROM, FLASH Memory (NOR and NAND), BPROM, NOVDRAM, SPLD, CPLD, EPLD, Firmware HUB, Microcontroller, MCU, Standard Logic
- Reliable programming of low voltage devices down to 1.5 volts
- Three modes of operation are supported: standard PC hosted operation via USB, stand-alone operation for manufacturing or service and built-in terminal mode to operate via an external instrument
- Over-current/over-voltage protection for safety of the chip & programmer hardware
- Microsoft® Windows® 98/ME/NT/2000/XP compatible
- Size: 9.4"L x 5.9"W x 2.0"H • Weight: 5.0 lbs.

Includes: 12VDC@2.5A AC adapter, Program CD, USB Cable, user's guide

| Part No. | Description | 1 | 5 |
|----------|--|----------|----------|
| 231221CX | SuperPro-3000 USB universal programmer | \$989.95 | \$940.45 |

For Adapters see Below



48-Pin Advanced, Low-Cost Universal Programmer

- Provides a 48-pin ZIF socket that accepts any number of pins
- Programmable I/O level supports low voltage devices down to 1.8V
- Device insertion and pin contact check protect chips from damaging
- Supports 5000+ devices including E/EPROM, FLASH, Microcontrollers, PLD & tests standard logic devices & SRAM
- High-speed embedded CPU generates more accurate & reliable algorithm timing
- Supports Windows® 95/98/2000/NT/ME/XP
- Connect to PC via printer port
- Size: 7.8"L x 5.5"W x 1.0"H • Wt.: 4.0 lbs.

Includes: Power adapter, parallel cable, user's guide & CD-ROM software

| Part No. | Description | 1 | 5 |
|----------|--|----------|----------|
| 231191CX | SuperPro-280 advanced universal programmer | \$444.95 | \$422.69 |

XELTEK

For Adapters see Below



Speed Comparison

| Device Type | Program (seconds) | Verify (seconds) | Pieces in 8 hour day |
|-------------|-------------------|------------------|----------------------|
| 28C64B | 1 | 0.8 | 7578 |
| 24C256 | 3 | 8 | 2215 |
| W78E58 | 13 | 3 | 1600 |
| PIC12C508 | 1 | 0.8 | 7578 |

XELTEK 40-Pin Low-Cost Universal Programmer

- Supports 2500+ devices, including most E(EP)ROM, Series E(EP)ROM & FLASH
- Programs GALs, PEELs, PALCE, Microcontrollers, PIC16Cxx/17Cxx, COP87xx, and PSD3XX
- Tests TTL/CMOS Test, Memory Test, Vector Test, Test Pattern Edit, Auto Identify TTL/CMOS Device
- Features a universal ZIF socket that accepts up to 40 pins
- High-speed programming, cost-effective hardware and flexible software
- Load and save file in binary, Intel (extended) Hex, Motorola S or Tektronics (extended) Hex format. Multiple load, format conversion, relocation etc.
- HEX-ASCII Edit, Fuse Map Edit, Checksum, Swap, Vector Table edit
- Supports Windows® 95/98/ME • Printer Port Interface
- Size: 7.8"L x 5.5"W x 0.8"H • Weight: 4.0 lbs.

Includes: Power adapter, parallel cable, user's guide and CD-ROM software

| Part No. | Description | 1 | 5 |
|----------|---------------------------------------|----------|----------|
| 231183CX | SuperPro-Z universal programmer | \$244.95 | \$232.69 |

XELTEK SMD Adapters for SuperPro 280/680/3000



231247CX



231255CX



231263CX



231271CX

| Part No. | Product No. | Description | 1 | 5 |
|----------|-------------|---------------------------|---------|---------|
| 231247CX | A008A | 28-pin PLCC adapter | \$84.95 | \$80.75 |
| 231255CX | A015A | 32-pin PLCC adapter | 94.95 | 90.25 |
| 231263CX | A244A | 44-pin PLCC adapter | 109.95 | 104.45 |
| 231271CX | A247A | 48-pin TSOP adapter | 174.95 | 166.25 |

High-Speed Universal Device Programmer/Tester

Parallel Port Interface

- Programs Flash memory, PROM, EPROM/EEPROM, Serial (E)EPROM, Bipolar PROM, PAL, PALCE, GAL, NVRAM, PEEL, EPLD, SPLD, CPLD, PIC & Microcontrollers
- 5000+ device types supported
- Hardware diagnostic program examines all 48-pin drivers
- On-board FPGA for speed: 4X faster than offshore brands
- Tests TTL, CMOS, DRAM and Static RAM ICs
- Detects pin locations for poor or damaged contacts
- Current limiting protects hardware circuits from improperly inserted or defective chips
- Supports POF and JEDEC formats
- High-speed device function tests and user creatable test library
- Read, blank check, program, verify, checksum, data compare, security, auto (erase, blank check, program, verify), and option bit program function
- Built-in editor for both buffer date and test vectors • CE/CUL/CSA quality certified

Includes: Parallel cable, installation diskette, power cord and manual

System Requirements: IBM PC, XT, AT, 386, 486, Pentium®, hard drive, 512k RAM, Windows® 95/98/2000/NT, and parallel port

| Part No. | Description | Socket | 1 | 5 |
|----------|-------------|----------------------------|----------|----------|
| 207765CX | TOPMAX | 48-pin universal ZIF | \$875.95 | \$832.95 |



MADE IN USA

Versatile, Production Quality Universal Programmers

Parallel Port Interface

- 3000+ device types supported
- Supports EPROM, flash, microcontroller, Serial (E)EPROM, EPLD, PALCE, GAL, PEEL
- Auto search device select function
- Fast programming speed with IC vendor approved algorithms
- Built-in editor for both buffer date and test vectors
- Supports JEDEC, Intel Hex, Motorola S Records, Binary and ASCII file formats with File LOAD/SAVE command
- Built-in macro commands for programming

Includes: 01/02/03 personality modules, parallel cable, wall adapter, disk & manual

System requirements: IBM PC, XT, AT, 386, 486, Pentium®, hard disk, 512k RAM, standard parallel port, MS-DOS 2.11 or higher

| Part No. | Description | Sockets | 1 | 5 |
|----------|--------------------|----------------------------------|----------|----------|
| 207773CX | MEGAMAX programmer | 48-pin ZIF | \$379.95 | \$349.95 |
| 207781CX | MEGAMAX4G prog. | 48-pin ZIF (1)/32-pin ZIF (3) .. | 429.95 | 399.95 |

MADE IN USA



207781CX

Fast, Low-Cost Universal Device Programmer

Parallel Port Interface

- 2000+ device types supported
- Menu driven software
- Programs (E)EPROM, PROM, Serial PROM, PALCE, GAL, flash memory, microcontrollers, ATF
- On-board FPGA for speed: 4X faster than offshore brands
- Auto search device select function supports (E)EPROM and microcontrollers
- Auto programming for production programming
- Device insertion test identifies improperly inserted device before programming
- Auto programming for production programming
- Read, blank check, program, verify, checksum, data compare, security, auto function

Includes: Parallel cable, wall adapter, diskette & manual

System Requirements: IBM PC, XT, AT, 386, 486, Pentium® or compatibles, DOS 2.11 or greater, Windows® 95/98/2000/NT/XP; hard disk, 512k RAM & parallel port

| Part No. | Description | Socket | 1 | 5 |
|----------|-------------|------------------|----------|----------|
| 207731CX | CHIPMAX | 40-pin ZIF | \$349.95 | \$332.95 |

MADE IN USA



Opening an account is easy!!

Corporate Customers

Call 1-800-831-4242
for details today.



Universal EPROM/Flash Programmer w/ USB Interface

- Supports low voltage components up to 2.5V; user selectable verify Vcc with one or two-pass verify voltage
- High speed: 30 sec. to process 16Mbits memory
- Auto detect device pin insertion and contact check
- Select device brand & number by prompt and convenient cross search, FLASH memory auto detection
- Supports EPROMs, EEPROMs, FLASH EPROMs, Serial E/EPROMs, NV RAMs, Microcontrollers, DSPs and PLDs
- Supports file formats JEDEC, binary, Intel 80/86 HEX, Motorola HEX, Tektronic HEX



SALE

Includes: USB cable, 12V@1.5A power adapter and CD-ROM software

System requirements: Pentium® II or higher, 32MB RAM minimum, 30MB hard disk space, Windows® 98/ME/2000 operating system

| Part No. | Description | 1 | 5 |
|----------|-------------|----------|----------|
| 225939CX | Leaper 48 | \$575.95 | \$529.95 |

512k E(E)PROM/Flash Programmer w/ USB Interface

Compact, portable, and lightweight stand-alone E(E)PROM flash programmer. Also interfaces with your PC through the USB port.

- Programs EPROMs, EEPROMs, Flash EPROMs & more
- 2 sockets for master/slave operation
- Stand-alone mode uses two 9V batteries
- IC parameters are adjustable such as programming algorithm, Vpp voltage, and pulse width
- Supports file formats binary and machine code, INTEL HEX, Motorola HEX
- Supports Windows® 95/98/NT/2000/ME/XP
- Size: 6.3"L x 4.3"W x 1.8"H

Includes: USB cable, 12VDC@500mA power adapter and CD-ROM

| Part No. | Description | 1 | 5 |
|----------|-------------|----------|----------|
| 220636CX | Leaper-3C | \$275.95 | \$249.95 |



Flash Writer/Programmer w/ USB Interface

- Programs 8-bit FLASH serial ICs via USB cable on Windows® 9x/2000/XP
- High speed: Only 22 seconds to blank check, program, and verify MXIC MX29F040
- File formats supported: binary and machine code, Intel HEX, Motorola HEX, Tektronic
- Type, read, load, edit, checksum, erase, blank check, program, verify, protect functions
- Supports Flash EPROM, EPROM & EEPROM

Includes: USB cable, 12V @ 500mA adapter, CD-ROM software and manual

| Part No. | Description | 1 | 5 |
|----------|-------------|----------|----------|
| 225947CX | Leaper 3D | \$199.95 | \$179.95 |



Flash Writer/Programmer w/ USB Interface

- Programs 8-bit Flash serial IC's via USB cable on Windows® 9x/ME/2000/XP
- High-speed, high-performance programming: programs a 16MB flash device in just 30 seconds
- File formats supported: Binary, Motorola HEX, Intel HEX, Tektronic HEX • Read, program, verify, blank check, erase, secure, memory edit functions
- EPROM auto ID, device insertion check
- File loading & saving w/ automatic format detection
- Project functionality to save device type, file and used procedures
- Adjustable IC parameters: voltage, algorithm, and pulse width
- Supports flash, EPROM, and EEPROM devices
- Powered by power adapter or two 9V batteries

Includes: USB cable, CD-ROM (software and users manual), installation manual, and power adapter

System Requirements: Pentium® II, 32MB of RAM, 30MB hard disk space, USB 1.1 compliant port or higher

| Part No. | Description | 1 | 10 |
|----------|---|----------|----------|
| 236988CX | EPP3 flash writer/programmer w/ USB interface | \$219.95 | \$208.95 |



ART
Applied Reader Technology

Universal Programmer – Pocket Size & Battery Powered

Parallel Port Interface

A unique ASIC pin driver was designed specifically for this latest generation programmer, enabling the first true universal input/output capability. Along with basic functions the software permits setting specially designated functions for any selected device.

- Supports 5200+ devices: 8-bit and 16-bit EPROM, EEPROM, FLASH EPROM, Serial EEPROMs, all Microcontrollers, GAL/PAL/CE without adaptors
- Support for ultra-low voltage devices down to 1.3V
- High speed ata transfer: 27C256 read/verify = 2 seconds; program = 8 seconds
- Three separately adjustable voltages for all 40-pins
- Fully compatible with Windows® 95/98/ME/NT/2000/XP
- Integrated editor's many features allow user to edit device data, which can be loaded or saved in INTEL HEX, Motorola S or binary format
- Operates on AC power adapter or 6 NiMH batteries
- Size: 4.5"L x 3.1"W x 1.3"H • Weight: 7.5 oz.

Includes: Printer port data cable, power adapter & CD

System requirements: PC with Pentium® CPU

| Part No. | Description | 1 | 5 |
|----------|-------------|----------|----------|
| 226309CX | GALEP-4 | \$369.95 | \$351.49 |



16kB-256MB Universal IC Programmer/Tester

Parallel Port Interface

Supports over 7,000 devices including EPROM, EEPROM, Serial PROM, FLASH, PLD/ CPLD/ FPGA, MPU/MCU & much more. Most devices in various package types can be programmed with the on-board 40-pin ZIF socket or through an appropriate adapter/converter. Modular pin drivers program at high speed & provide high reliability & expansion capability.

- Functions of load file, read master, program, verify, auto, ID check, checksum, blank check, erase, secure, protect/unprotect, edit, file transfer, function configuration & self test

Includes: External power supply, DB25 M/F cable, manual & software CD-ROM

System Requirements: Intel Pentium, 32MB of RAM, parallel port, Windows® 95/98/NT/2000/XP, 5MB free hard disk space, CD-ROM drive

206922CX: UV opaque EPROM window labels (168 per pack)

| Part No. | Description | 1 | 5 |
|----------|---------------------------|----------|----------|
| 216039CX | ALL-11C2 programmer | \$879.95 | \$799.95 |
| 206922CX | 1.1" x .046" window label | 6.95 | 6.25 |



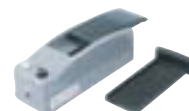
HI-LO SYSTEMS

EPROM Eraser

- Erases all UV erasable EPROMs (32-pin)
- Upper & lower erasing chambers hold a total of 16 EPROMs
- Conductive foam liner eliminates static build-up
- One-year warranty • Size: 8.5"L x 2.8"W x 2.8"H • Weight: 1.6 lbs.

Includes: AC adapter – 9VDC @ 600mA and a timer which turns eraser off at the end of the selected time period – 10 to 60 minutes

| Part No. | Description | 1 | 5 |
|----------|--------------|----------|----------|
| 121267CX | EPROM eraser | \$159.95 | \$143.95 |



EPROM Erasers and Accessories

66042CX: Erases 1 chip in 7 minutes

- Conductive foam liner eliminates static build-up
- UV intensity: 6.5mW/cm² • One-year warranty
- Size: 6.8"L x 1.5"W x 2.3"H • Weight: 0.8 lbs.

Requires: Four AA batteries (not included), recommend P/N 244515CX (pg 158)

15712CX: Erases 1 chip in 15 min. or 8 chips in 21 min.

- Conductive foam liner eliminates static build-up
- Maintains constant exposure distance of 1" • UV intensity: 6.8mW/cm²
- Built-in safety lock to prevent UV exposure • Size: 9.0"L x 3.7"W x 2.6"H
- Complete with holding tray for 8 chips • Weight: 2.3 lbs.

| Part No. | Description | 1 | 5 |
|----------|--------------------------|---------|---------|
| 66042CX | Portable eraser | \$54.95 | \$49.95 |
| 15712CX | 8-chip eraser | 119.95 | 109.95 |
| 34382CX | Lamp for 15712CX | 39.95 | 39.95 |
| 13864CX | Foam (12" x 24" x 0.25") | 9.29 | 8.35 |



Component Cabinet Kits

Color Code Legend
New Sale Qty. Save

Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion



81799CX (Capacitor Kit)

Each Kit includes a 20-Drawer Component Cabinet (81701CX), 20 clear plastic drawers (85454CX), 20 clear dividers (85446CX), 30 adhesive labels for drawers to identify parts in kit, and all the Electronic Components listed in each kit.

20-drawer component cabinet with every kit!

- Cabinet size: 6.0"L x 15.0"W x 7.9"H
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Cabinet is wall-mountable or free standing
- Cabinet: ABS-Black
- Weight: 4.6 to 6.4 lbs.

Each Refill Package includes all Electronic Components listed in each kit; each type is separately packaged.

Need a refill?
Just call
1-800-831-4242



108437CX (Hardware Kit)

1/2-Watt Single Turn Cermet Pot Kit

See page 55 (63P Series) for photos and specs.

Includes 100 pcs. (10 values) 1/2-watt Linear Taper Potentiometer

| 10 each | 10 each | 10 each | 10 each | 10 each |
|----------|------------------------------|------------|---------|----------|
| 63P500Ω | 63P5kΩ | 63P500kΩ | 63P1kΩ | 63P50kΩ |
| 63P2kΩ | 63P20kΩ | 63P1MΩ | 63P10kΩ | 63P100kΩ |
| Part No. | Description | Wt. (lbs.) | 1 | 10 |
| 85036CX | 100 pcs. single turn Pot kit | 4.9 | \$65.95 | \$59.35 |

SAVE \$28

3/4-Watt 15 Turn Cermet Pot Kit

See page 55 (43P Series) for photos and specs.

Includes 100 pcs. (10 values) 3/4-watt Linear Taper Potentiometer

| 10 each | 10 each | 10 each | 10 each | 10 each |
|----------|--------------------------|------------|---------|----------|
| 43P500Ω | 43P5kΩ | 43P500kΩ | 43P1kΩ | 43P50kΩ |
| 43P2kΩ | 43P20kΩ | 43P1MΩ | 43P10kΩ | 43P100kΩ |
| Part No. | Description | Wt. (lbs.) | 1 | 10 |
| 85045CX | 100 pcs. 15 turn Pot kit | 4.9 | \$82.95 | \$74.65 |

SAVE \$32

Switch Assortment Kit

See pages 97, 98, 100 & 101 for photos and specs.

Includes 150 pcs. (15 types) Pushbutton, Slide, Dip & Toggle Switches

| 10 each | 10 each | 10 each | 10 each | 10 each |
|----------|---------------------|------------|---------|----------|
| 206-4 | JMT121 | JMT223 | MPC221 | MS103 |
| 206-8 | JMT123 | MPC121 | MPC223 | SDTX620K |
| JMT113 | JMT221 | MPC123 | MS102 | SW153 |
| Part No. | Description | Wt. (lbs.) | 1 | 10 |
| 85063CX | 150 pcs. Switch kit | 5.0 | \$98.95 | \$88.95 |

SAVE \$52

Hardware and Spacer Assortment Kit

Includes 2300 pcs. (23 types) Spacers, Nuts, Flat, Tooth & Lock Washers and Slotted PH Screws

| 100 each | 100 each | 100 each | 100 each | 100 each | 100 each |
|----------|---------------------------------|------------|------------|------------|-------------------|
| Spacers | Hex nuts | Flat | Int. tooth | Split lock | PH machine screws |
| — | 2-56 | — | — | #2 | 2-56 x 1/4, — |
| 4-40 | 4-40 | #4 | #4 | #4 | 4-40 x 1/4, 1/2 |
| 6-32 | 6-32 | #6 | #6 | #6 | 6-32 x 1/4, 1/2 |
| 8-32 | 8-32 | #8 | #8 | #8 | 8-32 x 1/2, — |
| Part No. | Description | Wt. (lbs.) | 1 | 10 | |
| 108437CX | 2300 pcs. Hardware kit | 7.5 | \$55.95 | \$50.36 | |
| 130501CX | Refill for 108433CX (2300 pcs.) | 2.7 | 39.95 | 35.95 | |

SAVE \$55

Ceramic Disc Capacitor Kit

Includes 520 pcs. (10 values) 50V ±20% Ceramic Disc Capacitors

| 20 each | 20 each | 20 each | 100 each | 100 each |
|----------|--------------------------------|------------|----------|----------|
| 10pF | 47pF | 470pF | .022μF | .01μF |
| 22pF | 100pF | .001μF | .047μF | .1μF |
| Part No. | Description | Wt. (lbs.) | 1 | 10 |
| 81863CX | 520 pcs. Ceramic Capacitor kit | 5.0 | \$35.95 | \$32.35 |
| 130236CX | Refill for 81859CX (520 pcs.) | 0.3 | 17.95 | 16.49 |

SAVE \$16

Monolithic Ceramic Capacitor Kit

Includes 280 pcs. (10 types) 50V ±20% Monolithic Ceramic Capacitors

| 10 each | 10 each | 10 each | 10 each | 100 each |
|----------|-----------------------------------|------------|---------|----------|
| 22pF | .001μF | .047μF | .47μF | .01μF |
| 100pF | .0022μF | .22μF | 1μF | .1μF |
| Part No. | Description | Wt. (lbs.) | 1 | 10 |
| 171479CX | 280 pcs. Monolithic Capacitor kit | 5.0 | \$29.95 | \$26.95 |
| 171487CX | Refill for 171475CX (280 pcs.) | 0.3 | 17.95 | 15.95 |

SAVE \$10

Radial Electrolytic Capacitor Kit

Includes 240 pcs. (15 values) ±20% Radial Electrolytic Capacitors

| 10 each | 10 each | 20 each | 20 each | 20 each |
|-------------|-------------------------------|-------------|-------------|-------------|
| 100μF @ 50V | 1000μF @ 16V | 1μF @ 50V | 3.3μF @ 50V | 22μF @ 50V |
| 220μF @ 25V | 2200μF @ 25V | 1μF @ 100V | 4.7μF @ 50V | 47μF @ 50V |
| 470μF @ 25V | 3300μF @ 25V | 2.2μF @ 50V | 10μF @ 50V | 100μF @ 25V |
| Part No. | Description | Wt. (lbs.) | 1 | 10 |
| 81871CX | 240 pcs. Radial Capacitor kit | 5.3 | \$29.95 | \$26.95 |
| 130335CX | Refill for 81867CX (240 pcs.) | 0.5 | 17.95 | 16.49 |

SAVE \$11

Axial Electrolytic Capacitor Kit

Includes 140 pcs. (10 values) ±20% Axial Electrolytic Capacitors

| 10 each | 10 each | 10 each | 20 each | 20 each |
|-------------|-------------------------------|--------------|-------------|-------------|
| 47μF @ 50V | 220μF @ 50V | 1000μF @ 25V | 1μF @ 50V | 10μF @ 50V |
| 100μF @ 50V | 470μF @ 50V | 2200μF @ 16V | 4.7μF @ 50V | 2.2μF @ 50V |
| Part No. | Description | Wt. (lbs.) | 1 | 10 |
| 81879CX | 140 pcs. Axial Capacitor kit | 5.3 | \$37.95 | \$34.15 |
| 130344CX | Refill for 81875CX (140 pcs.) | 0.6 | 24.95 | 22.49 |

SAVE \$13

Mylar Capacitor Kit

Includes 280 pcs. (10 values) 100V ±10% Mylar Capacitors

| 10 each | 10 each | 10 each | 10 each | 100 each |
|----------|-------------------------------|------------|---------|----------|
| .001μF | .022μF | .047μF | .47μF | .01μF |
| .0047μF | .033μF | .22μF | 1μF | .1μF |
| Part No. | Description | Wt. (lbs.) | 1 | 10 |
| 81887CX | 280 pcs. Mylar Capacitor kit | 5.1 | \$37.95 | \$34.15 |
| 130362CX | Refill for 81883CX (280 pcs.) | 0.3 | 19.95 | 17.95 |

SAVE \$11

Dipped Tantalum Capacitor Kit

Includes 150 pcs. (15 values) ±20% Dipped Tantalum Capacitors

| 10 each | 10 each | 10 each | 10 each | 10 each |
|-------------|---------------------------------|-------------|------------|------------|
| .1μF @ 35V | 1μF @ 25V | 3.3μF @ 35V | 10μF @ 16V | 22μF @ 16V |
| .22μF @ 35V | 1μF @ 35V | 4.7μF @ 35V | 10μF @ 35V | 33μF @ 25V |
| .47μF @ 35V | 2.2μF @ 16V | 6.8μF @ 35V | 15μF @ 25V | 47μF @ 25V |
| Part No. | Description | Wt. (lbs.) | 1 | 10 |
| 81845CX | 150 pcs. Tantalum Capacitor kit | 4.8 | \$79.95 | \$71.95 |
| 130264CX | Refill for 81841CX (150 pcs.) | 0.3 | 59.95 | 53.95 |

SAVE \$40

Transistor Assortment Kit

See pages 28-29 for photos and specs.

Includes 560 pcs. (20 types) NPN, PNP (High/Medium/Low Power) Transistors

| 10 each | 10 each | 10 each | 10 each | 100 each |
|----------|-------------------------------|------------|---------|----------|
| 2N2222A | 2N4401 | MJE3055T | TIP31A | 2N3904 |
| 2N2907A | 2N4403 | MPF102 | TIP32A | 2N3906 |
| 2N3053 | 2N5951 | MPSA06 | TIP102 | PN2222 |
| 2N3055 | 2N7000 | MPSA13 | TIP120 | PN2907 |
| Part No. | Description | Wt. (lbs.) | 1 | 10 |
| 82599CX | 560 pcs. Transistor kit | 5.1 | \$82.95 | \$74.65 |
| 130378CX | Refill for 82595CX (560 pcs.) | 0.4 | 69.95 | 62.95 |

SAVE \$7

Diode Assortment Kit

See pages 31-30 for photos and specs.

Includes 420 pcs. (15 types) Zener, Switching and Silicon Rectifiers

| 10 each | 10 each | 10 each | 10 each | 100 each |
|----------|-------------------------------|------------|---------|----------|
| 1N270 | 1N4001 | 1N4735 | 1N5408 | 1N914 |
| 1N751 | 1N4007 | 1N4742 | C106B1 | 1N4004 |
| 1N3600 | 1N4733 | 1N5404 | KBPO4M | 1N4148 |
| Part No. | Description | Wt. (lbs.) | 1 | 10 |
| 82591CX | 420 pcs. Diode kit | 5.0 | \$39.95 | \$35.95 |
| 130370CX | Refill for 82587CX (420 pcs.) | 0.3 | 25.95 | 21.95 |

SAVE \$3

Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion

20-drawer
component
cabinet with
every kit!

84974CX (IC kit)

85000CX (LED Kit)

81836CX
(Resistor kit)

Need a refill?
Just call
1-800-831-4242

Each Kit includes a 20-Drawer Component Cabinet (81701CX), 20 clear plastic drawers (85454CX), 20 clear dividers (85446CX), 30 adhesive labels for drawers to identify parts in kit, and all the Electronic Components listed in each kit.

• Cabinet size: 6.0"L x 15.0"W x 7.9"H • Drawer size: 5.5"L x 2.7"W x 1.5"H • Weight: 4.6–6.4 lbs. • Cabinet: ABS-Black • Cabinet is wall-mountable or free standing

Each Refill Package includes all Electronic Components listed in each kit; each type is separately packaged.

4000 Series CMOS IC Kit

Includes 300 pcs. (25 types) CD4000 Series Integrated Circuits

SAVE \$27

| 10 each | 10 each | 10 each | 10 each | 20 each |
|---------|---------|---------|---------|---------|
| CD4015 | CD4024 | CD4051 | CD4093 | CD4001 |
| CD4016 | CD4027 | CD4069 | CD4511 | CD4011 |
| CD4017 | CD4040 | CD4070 | CD4538 | CD4013 |
| CD4020 | CD4046 | CD4071 | CD4543 | CD4049 |
| CD4023 | CD4050 | CD4081 | CD4584 | CD4066 |

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|----------------------------------|------------|---------|---------|
| 84974CX | 300 pcs. 4000 series CMOS IC kit | 6.1 | \$79.95 | \$71.95 |
| 130407CX | Refill for 84970CX (300 pcs.) | 1.4 | 58.95 | 52.95 |

7400 Series IC Kit

Includes 350 pcs. (30 types) 7400 (TTL) Integrated Circuits

SAVE \$73

| 10 each | 10 each | 10 each | 10 each | 10 each | 20 each |
|---------|---------|---------|---------|---------|---------|
| 7402 | 7416 | 7438 | 74107 | 74157 | 7400 |
| 7405 | 7417 | 7447 | 74123 | 74160 | 7404 |
| 7408 | 7420 | 7470 | 74132 | 74174 | 7406 |
| 7410 | 7430 | 7485 | 74151 | 74175 | 7407 |
| 7414 | 7432 | 7495 | 74153 | 74279 | 7474 |

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|----------------------|------------|----------|----------|
| 84957CX | 350 pcs. 7400 IC kit | 6.2 | \$149.95 | \$134.95 |

74LS Series IC Kit

Includes 420 pcs. (35 types) 74LS (TTL) Integrated Circuits

SAVE \$46

| 10 each | 10 each | 10 each | 10 each | 20 each |
|---------|---------|---------|---------|---------|
| 74LS05 | 74LS73 | 74LS125 | 74LS193 | 74LS00 |
| 74LS10 | 74LS75 | 74LS139 | 74LS240 | 74LS02 |
| 74LS11 | 74LS85 | 74LS151 | 74LS244 | 74LS04 |
| 74LS14 | 74LS86 | 74LS155 | 74LS245 | 74LS08 |
| 74LS20 | 74LS90 | 74LS157 | 74LS273 | 74LS32 |
| 74LS30 | 74LS93 | 74LS174 | 74LS373 | 74LS74 |
| 74LS47 | 74LS123 | 74LS175 | 74LS374 | 74LS138 |

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-------------------------------|------------|----------|----------|
| 84965CX | 420 pcs. 74LS IC kit | 6.7 | \$119.95 | \$107.95 |
| 130395CX | Refill for 84961CX (420 pcs.) | 2.0 | 99.99 | 89.99 |

Linear Series IC Kit

Includes 480 pcs. (40 types) Linear Series Integrated Circuits

SAVE \$52

| 10 each | 10 each | 10 each | 10 each | 20 each |
|-----------|----------|----------|----------|---------|
| TL072CP | LM337T | LF412CN | ULN2803A | LM317T |
| TL074CN | LF353N | LMC555CN | NE5532 | LM324N |
| TL082CP | LF356N | LM556N | 7808T | LM339N |
| TL084CN | LM358N | LM723CN | 78L12 | LM741CN |
| MAX232CPE | LM386N-1 | LM1458N | 7815T | LM555CN |
| LM301N | LM386N-3 | LM1488N | 7905T | 7805T |
| LM308N | LM393N | DS1489N | 7912T | 78L05 |
| LM311N | LF411CN | ULN2003A | 7915T | 7812T |

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-------------------------------|------------|----------|----------|
| 84992CX | 480 pcs. Linear IC kit | 6.0 | \$182.95 | \$164.65 |
| 130415CX | Refill for 84988CX (480 pcs.) | 1.3 | 169.95 | 145.95 |

Low Profile IC Socket Kit

Includes 300 pcs. (10 types) Solder tail (Tin) IC Sockets

SAVE \$13

| 10 each | 20 each | 20 each | 50 each | 50 each |
|---------|---------|---------|---------|---------|
| 22LP | 18LP | 28LP | 8LP | 16LP |
| 24SLP | 24LP | 40LP | 14LP | 20LP |

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|---------------------------|------------|---------|---------|
| 85079CX | 300 pcs. LP IC Socket kit | 5.5 | \$36.95 | \$33.25 |

LEDs & LED Mounting Hardware Kit

See pages 38 & 40 for photos and specs.

SAVE \$29

Includes 560 pcs. (20 types) LEDs and mounting hardware

| 10 each | 10 each | 10 each | 10 each | 100 each |
|-----------|-----------|-----------|---------|----------|
| LVG2043 | QLMPD141 | LSG2040 | LG3330 | LMH100 |
| LH2043 | CLF280CTP | LY2040 | LY3330 | LMH200 |
| LT0333-41 | LVY3333 | LA93B/G-1 | LFH3360 | LH2040 |
| LG3333 | LHG3392 | LA93B/H-1 | LEG3362 | LTL307E |

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-----------------------------|------------|---------|---------|
| 85000CX | 560 pcs. LED & Hardware kit | 5.0 | \$66.95 | \$60.25 |

1/8-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/8-watt 5% Resistors

| 10 each | 10 each | 10 each | 10 each | 10 each | 10 each | 50 each | 50 each |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 10Ω | 330Ω | 1.5kΩ | 3.3kΩ | 15kΩ | 47kΩ | 100Ω | 4.7kΩ |
| 47Ω | 390Ω | 2Ω | 5.1kΩ | 22kΩ | 470kΩ | 220Ω | 10kΩ |
| 150Ω | 470Ω | 2.2kΩ | 5.6kΩ | 27kΩ | 1MΩ | 1kΩ | 100kΩ |
| 270Ω | 680Ω | 2.7kΩ | 6.8kΩ | 33kΩ | 10MΩ | | |

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|--------------------------------|------------|---------|---------|
| 108333CX | 540 pcs. 1/8-watt Resistor kit | 4.9 | \$24.95 | \$22.49 |
| 108307CX | Refill for 108329CX (540 pcs.) | 0.2 | 12.95 | 11.49 |

1/4-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/4-watt 5% Resistors

| 10 each | 10 each | 10 each | 10 each | 10 each | 10 each | 50 each | 50 each |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 10Ω | 330Ω | 1.2kΩ | 2.7kΩ | 15kΩ | 47kΩ | 100Ω | 4.7kΩ |
| 47Ω | 390Ω | 1.5kΩ | 3.3kΩ | 20kΩ | 470kΩ | 220Ω | 10kΩ |
| 150Ω | 470Ω | 2kΩ | 5.1kΩ | 22kΩ | 1MΩ | 1kΩ | 100kΩ |
| 270Ω | 680Ω | 2.2kΩ | 5.6kΩ | 33kΩ | 10MΩ | | |

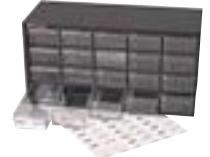
| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|--------------------------------|------------|---------|---------|
| 81836CX | 540 pcs. 1/4-watt Resistor kit | 4.9 | \$27.95 | \$24.95 |
| 103169CX | Refill for 81832CX (540 pcs.) | 0.2 | 12.95 | 11.49 |

1/2-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/2-watt 5% Resistors

| 10 each | 10 each | 10 each | 10 each | 10 each | 10 each | 50 each | 50 each |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 10Ω | 330Ω | 1.5kΩ | 3.3kΩ | 15kΩ | 47kΩ | 100Ω | 4.7kΩ |
| 47Ω | 390Ω | 2kΩ | 5.1kΩ | 22kΩ | 470kΩ | 220Ω | 10kΩ |
| 150Ω | 470Ω | 2.2kΩ | 5.6kΩ | 27kΩ | 1MΩ | 1kΩ | 100kΩ |
| 270Ω | 680Ω | 2.7kΩ | 6.8kΩ | 33kΩ | 10MΩ | | |

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|--------------------------------|------------|---------|---------|
| 107883CX | 540 pcs. 1/2-watt Resistor kit | 5.1 | \$29.95 | \$26.95 |
| 107856CX | Refill for 107879CX (540 pcs.) | 0.4 | 14.95 | 13.49 |



135394CX - Electrolytic

135271CX - LEDs

169578CX - Photocells

18294CX - Toy Motors

149649CX - Fans

55968CX - Spacers

81701CX - Cabinet

* LB grab bag quantities are approximate • Opened grab bags are not returnable • Use our 20-drawer cabinet w/ labels to store your components, P/N 81701CX, pg 108

Shaded in brown on this page you will find Jameco's nine most popular component Grab Bags. They are all individually bagged, and are combined to make up the Schwab's School Selection (P/N 163213CX) referenced towards the bottom of the page.

Capacitors

| Part No. | Cross Ref. No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|----------------|---|------------|--------|--------|
| 17857CX | GB100 | 200 asst. ceramic disc capacitors | 0.2 | \$4.95 | \$4.49 |
| 135335CX | GB100LB* | 1 lb. (813 pcs) asst. ceramic disc caps. | 1.0 | 12.95 | 11.49 |
| 17881CX | GB101 | 100 assorted mylar capacitors | 0.3 | 5.95 | 5.35 |
| 135458CX | GB101LB* | 1 lb. (440 pcs) asst. mylar capacitors | 1.0 | 14.95 | 13.49 |
| 17911CX | GB102 | 100 assorted electrolytic capacitors radial, axial, snap | 0.5 | 4.95 | 4.49 |
| 135394CX | GB102LB* | 1.5 lb. assorted (300 pcs) electrolytic caps. radial, axial, snap (photo above) | 1.5 | 12.95 | 11.49 |
| 17945CX | GB103 | 100 assorted tantalum capacitors (dipped epoxy and solid tubular) | 0.1 | 9.95 | 8.95 |

Diodes, Transistors and Crystals/Oscillators

| Part No. | Cross Ref. No. | Description | Wt. (lbs.) | 1 | 10 | 25 |
|----------|----------------|---|------------|--------|--------|--------|
| 17961CX | GB107 | 200 assorted diodes (zener, switching, silicon) | 0.1 | \$5.95 | \$5.35 | \$4.79 |
| 18171CX | GB127 | 100 assorted transistors (NPN, PNP, power) | 0.1 | 5.95 | 5.35 | 4.79 |
| 114446CX | GB150 | 50 assorted crystals/oscillators | 0.2 | 7.95 | 6.95 | 6.25 |

Trimmer and Single-Turn Potentiometers

| Part No. | Cross Ref. No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|----------------|--|------------|--------|--------|
| 18075CX | GB113 | 100 asst. 1/10W to 1/8W trimmer pots (100Ω to 2MΩ values) | 0.1 | \$6.95 | \$6.25 |
| 18278CX | GB174 | 100 assorted 1/4W & 1/2W single turn pots (100Ω to 5MΩ assorted values) | 0.2 | 6.95 | 6.25 |
| 135407CX | GB174LB* | 1 lb. (295 pcs) 1/4W & 1/2W single turn pots (100Ω to 5MΩ assorted values) | 1.0 | 15.95 | 14.39 |

Integrated Circuits and Sockets

| Part No. | Cross Ref. No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|----------------|---|------------|--------|--------|
| 17996CX | GB108 | 100 assorted 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT) | 0.2 | \$6.95 | \$6.25 |
| 135280CX | GB108LB* | 1 lb. (400 pcs) asst. 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT) | 1.0 | 16.95 | 14.95 |
| 18024CX | GB109 | 100 asst. linear series (LM300, 500, 700, 7800, 7900 reg.) DIP, TO-3, TO-220 | 0.6 | 7.95 | 6.95 |
| 145242CX | GB109LB* | 2 lb. (300 pcs) asst. linear series (LM300, 500, 700, 7800, 7900 reg.) | 2.0 | 16.95 | 14.95 |
| 114964CX | GB171 | 100 asst. microprocessor series (micros, PALS, RAMs, PROMs, EPROMs) | 0.7 | 7.95 | 6.95 |
| 105620CX | GB120 | 100 asst. sockets (DIP IC, PGA) | 0.3 | 5.95 | 5.35 |
| 135386CX | GB120LB* | 1 lb. (260 pcs) assorted sockets (DIP, PGA, SIMM, SIP, DIN) | 1.0 | 12.95 | 11.49 |

Surprise Computer Products Grab Bag

Various electronic components (capacitors, connectors, sockets, LEDs, resistors, diodes, ICs, transistors, pots, oscillators/resonators, inductors, crystals, switches), cables, power supply, transformer, fan, PC board, keyboard, misc. computer products.

• Weight is approximate

| Part No. | Cross Ref. No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|----------------|-----------------------------|-------------|---------|---------|
| 18331CX | GB190 | Component/computer grab bag | 20-25 | \$17.95 | \$15.95 |



Best Bargain!

LEDs and Displays

| Part No. | Cross Ref. No. | Description | Wt. (lbs.) | 1 | 10 | 25 |
|----------|----------------|---|------------|--------|--------|--------|
| 18041CX | GB110 | 100 assorted sizes & colored LEDs (T1/T1 ³ / ₄ round and rectangular) | 0.1 ... | \$6.95 | \$6.29 | \$5.65 |
| 18323CX | GB186 | 500 asst. sizes #18041CX LEDs | 0.3 ... | 19.95 | 17.95 | 15.95 |
| 135271CX | GB110LB* | 1 lb. (1900 pcs) asst. #18041CX LEDs | 1.0 ... | 44.95 | 40.95 | 38.95 |
| 18201CX | GB162 | 50 asst. sizes of colored displays (7-segment LED, modules, stick) | 0.5 | 6.95 | 5.95 | 5.95 |

1/4W, 1/2W Resistors and Photocells

| Part No. | Cross Ref. No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|----------------|---------------------------------------|------------|--------|--------|
| 18104CX | GB116 | 200 asst. 1/4W resistors (5/10%) | 0.1 ... | \$5.49 | \$4.95 |
| 135351CX | GB116LB* | 1 lb. (2000 pcs) asst. 1/4W resistors | 1.0 ... | 14.95 | 13.49 |
| 18139CX | GB117 | 200 asst. 1/2W resistors (5/10%) | 0.2 | 5.95 | 5.35 |
| 169578CX | GB125 | 100 asst. values photocells | 0.2 ... | 12.95 | 11.49 |

Switches, Toy Motors and Fans

| Part No. | Cross Ref. No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|----------------|--|------------|--------|--------|
| 18235CX | GB165 | 50 assorted switches (toggle, pushbutton, rocker, slide) | 0.4 ... | \$8.75 | \$7.69 |
| 135378CX | GB165LB* | 1 lb. (135 pcs) asst. #18235CX switches | 1.0 ... | 18.95 | 16.95 |
| 18294CX | GB182 | 5 asst. toy DC motors (1.5-24V) | 1.1 | 5.49 | 4.95 |
| 149649CX | GB193 | 5 asst. AC/DC fans (photo above) | 4.5 | 8.75 | 7.69 |

Hardware Assortments

• 2-56 • 4-40 • 6-32 • 8-32 • Screws • Plastic
• Nuts • Washers • Steel • Brass • Lock Washers • Aluminum

| Part No. | Cross Ref. No. | Description | Wt. (lbs.) | 1 | 10 | 25 |
|----------|----------------|---|------------|--------|--------|--------|
| 171571CX | GB149* | 1 lb. (500 pcs) asst. types of screws, nuts, washers & lock washers | 1.0 | \$5.95 | \$5.35 | \$4.79 |
| 171635CX | GB149LB* | 3 lbs. (1400 pcs) asst. types; same as P/N 171571CX (above) | 3.0 | 12.95 | 11.49 | 9.95 |

Spacers and Standoffs Assortments

• Round • Hex • Aluminum • Brass • Steel • Plastic • Nylon

| Part No. | Cross Ref. No. | Description | Wt. (lbs.) | 1 | 10 | 25 |
|----------|----------------|--|------------|--------|--------|--------|
| 166481CX | GB440 | 100 asst. 4-40 spacers/standoffs | 0.5 ... | \$6.95 | \$6.25 | \$5.59 |
| 166490CX | GB632 | 100 asst. 6-32 spacers/standoffs | 0.5 | 6.95 | 6.25 | 5.59 |
| 55968CX | GB140 | 100 asst. 4-40, 6-32, 8-32 round/hex, alum/brass/nylon spacers | 0.3 | 7.95 | 6.95 | 6.25 |
| 135423CX | GB140LB* | 1 lb. (310 pcs) same as P/N 55968CX | 1.0 ... | 17.95 | 15.95 | 13.95 |

Schwab's School Selection

Jameco's nine most popular Grab Bags (highlighted on this page) are all individually bagged. North Dakota Engineer, Loren Schwab, recommended this selection of products as a standard item. He also recommended a 20-drawer component cabinet with labels (81701CX photo above) for storage. What's your suggestion?

Includes: Ceramic and electrolytic capacitors, diodes, transistors, potentiometers, switches, LEDs, 1/4W resistors, spacers and standoffs.

| Part No. | Cross Ref. No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|----------------|-----------------------------|------------|---------|---------|
| 163213CX | GB197 | Schwab's School Selection | 3.3 | \$39.95 | \$34.95 |
| 81701CX | CAB20 | 20-drawer component cabinet | 4.7 | 15.95 | 13.95 |

Surprise Component Grab Bag

Axial and radial electrolytics, monolithic, dipped silver mica and mylar capacitors, connectors, sockets, thermistors, LEDs, resistor networks, diodes, ICs, standoffs, transistors, oscillator/resonators, inductors, crystals, resistors, pots and switches (1075 pcs).

| Part No. | Cross Ref. No. | Description | Wt. (lbs.) | 1 | 10 | 25 |
|----------|----------------|------------------------------|------------|---------|---------|---------|
| 135263CX | GB191LB* | 3 lbs. electronic components | ..... | \$17.95 | \$15.95 | \$13.95 |

Our Best Seller!



650nm Line and Dot Laser Diodes

143845CX/173243CX:

- Focus adjustable w/ locking set screw
- Wattage: 5mW
- Operating voltage: 3-5V
- Size: 3.3"L x 0.9"Dia.
- One-year warranty

Class IIIa Laser Product



173243CX

143845CX: Line laser module

- Laser line width: 1mm
- Laser fan angle: 60°

173243CX: Cross hair laser diode module

- Laser fan angle: 60°
- Female 2.1mm power connector
- Size: 3.0"L x 0.9"D

143837CX: Module regulated power supply

- Output: 5VDC @ 100mA
- Short circuit protection
- Input voltage: 95-125VAC or 190-250VAC switchable
- Size: 2.0"W x 1.7"D x 9.2"H
- Weight: 0.6 lbs.

143853CX: Laser module mount

- Built to hold laser diode on target.
- X-Y tilt, θ movement
- Tightening screw for tilt adjustment



143853CX

| Part No. | Description | 1 | 10 |
|----------|-----------------------------|----------|----------|
| 143845CX | Line laser diode module | \$114.95 | \$103.95 |
| 143853CX | Laser diode module mount | 49.95 | 39.95 |
| 173243CX | Cross hair laser diode mod. | 89.95 | 80.95 |
| 143837CX | Regulated power supply | 19.95 | 17.95 |

Green Laser Pointer



Even the sleepest audience will sit up and salute when you whip out a laser pointer that's green, not red...and so bright, you could be standing nearly half a mile away. Using a wavelength closely matched to the highest sensitivity of the human eye and built with cutting-edge crystal technology, this laser projects a green beam so powerful you can see it against a clear sky at night. You won't believe how bright it is.

Ultra-intense green beam is much brighter, goes much farther and is easier on the eyes than standard red lasers.

- Output wavelength: 532nm
- Output power: <5mW
- 90-day mfg. warranty

Includes: Metal gift box, clip and 2 AAA batteries

| Part No. | Description | Price |
|----------|---------------------|----------|
| 223731CX | Green laser pointer | \$199.95 |

30-Day Money-Back Guarantee

If you're not completely satisfied with your order, we'll take it back!

Details on page 241.

ALPEC Laser Pointer w/ Key Ring

- Range up to 150 yards
- 650nm red laser
- One-year warranty

Class IIIa Laser Product



Includes: 2 coin cell batteries

| Part No. | Description | Size (L" x Dia.") | 1 | 10 |
|----------|---------------|-------------------|---------|---------|
| 153613CX | Laser pointer | 2.1 x 0.5 | \$16.95 | \$14.95 |

Glass-Lens Red Laser Diode and Line Generator

133292CX: Laser Diode

This lens design uses 3-element glass to collect almost all the power from the laser diode resulting in a brighter spot than many typical laser applications.

- Operating voltage: 4.0-6.0VDC (recommend P/N 112070CX, pg 149)
- Maximum output: 4mW
- Beam size at 7m: oval - 5mm x 8mm
- Wavelength: 660nm
- Beam divergence: 0.2mrad
- Green LED indicator
- Module size: 2.0"L x 0.5"W

Class IIIa Laser Product



133292CX

134148CX: 60° Line Generating Lens

- Adjustable focus range: 50 cm to ∞
- Back focal length: 1.5mm
- Focal length: 8.0mm
- Beam divergence: 2.0mrad
- Lens construction: 3E.3G (glass)
- Fan angle: 60°
- Length at 1 meter distance: 1.7 m



134148CX

| Part No. | Description | 1 | 10 | 25 |
|----------|-------------------|---------|---------|---------|
| 133292CX | Glass laser diode | \$44.95 | \$39.95 | \$35.95 |
| 134148CX | 60° lens | 12.95 | 11.49 | 9.95 |

Laser Light Show



A Laser Light show in the palm of your hands. Push a switch for fascinating, ever-changing laser patterns. This state-of-the art laser device provides hours of fun for kids from 10 to 70 years young. A great and fun way to teach students about lasers and mechanical

- Range: 30 yards free form/500 yards dot point
- Output wavelength: 650nm
- Output power: <5mW

Includes: 3 LR44 batteries and neck strap



Create all different shapes and sizes.

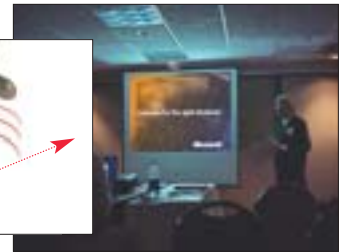
resonances. Create your own laser light show while listening and dancing to your favorite tunes. Or hang it around your neck creating your own magical lights. Laser movement can be switched off and can be used as a compact laser pointer.

SALE

| Part No. | Description | 1 | 5 |
|----------|------------------|---------|---------|
| 223714CX | Black case laser | \$22.25 | \$20.25 |

BlueTooth Smart Pointer Presenter

The best presenters know to "keep it simple," and this pen-sized presentation pal is the essence of simplicity. It provides easy, wireless "forward/backward" control of your Power Point slides, and incorporates a laser pointer into its go-anywhere, pen-format design. Bluetooth technology means plug-and-play set-up and solid control from up to 45 feet away!



| Part No. | Description | Price |
|----------|-------------------------|---------|
| 256428CX | Smart pointer presenter | \$89.95 |

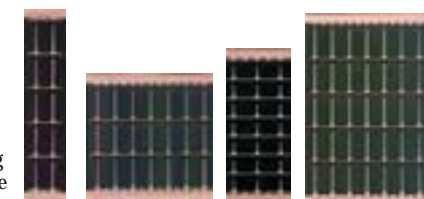
Control your electronic slides from up to 45 feet away!

Check our website at www.Jameco.com for additional laser products.

PowerFilm. Flexible Thin Film Solar Modules

Wireless Electronics Series

The wireless electronics series offers a new opportunity to solve the old problem of limited power for wireless electronics in portable and remote applications. These modules are lightweight, paper thin, and durable. With their ultra-film profile, they are easily integrated with devices for solar recharging or direct powering. Specifically developed to recharge AA, AAA, plus 6 and 12 volt batteries.

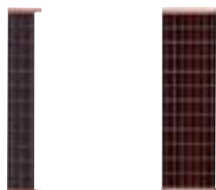


227993CX 228013CX 228030CX 228064CX

| Part No. | Product No. | Operating Voltage (V) | Operating Current (mA) | Size (L x W x T) | | Pricing | | |
|----------|-------------|-----------------------|------------------------|------------------|-----------------|---------|--------|--------|
| | | | | Inches | mm | 1 | 10 | 100 |
| 227985CX | SP3-37 | 3.0 | 22 | 2.5 x 1.5 x .01 | 64 x 37 x 0.2 | \$3.89 | \$3.49 | \$3.19 |
| 227993CX | TX 3-25 | 3.0 | 25 | 4.5 x 1.0 x .01 | 114 x 25 x 0.2 | 2.89 | 2.45 | 1.99 |
| 171061CX | MP3-37 | 3.0 | 50 | 4.5 x 1.5 x .01 | 114 x 37 x 0.2 | 5.89 | 5.29 | 5.29 |
| 228013CX | MPT3.6-75 | 3.6 | 50 | 2.9 x 3.0 x .01 | 74 x 75 x 0.2 | 8.89 | 7.99 | 7.19 |
| 228021CX | MPT3.6-150 | 3.6 | 100 | 2.9 x 5.9 x .01 | 74 x 150 x 0.2 | 17.89 | 15.99 | 14.39 |
| 228030CX | SP4.2-37 | 4.2 | 22 | 3.3 x 1.5 x .01 | 84 x 37 x 0.2 | 5.89 | 5.29 | 4.79 |
| 228048CX | MPT4.8-75 | 4.8 | 50 | 3.7 x 3.0 x .01 | 97 x 75 x 0.2 | 11.89 | 10.69 | 9.59 |
| 228056CX | MPT4.8-150 | 4.8 | 100 | 3.7 x 5.9 x .01 | 94 x 150 x 0.2 | 22.89 | 20.59 | 18.49 |
| 228064CX | MPT6-75 | 6.0 | 50 | 4.5 x 3.0 x .01 | 114 x 75 x 0.2 | 13.89 | 12.49 | 11.29 |
| 228072CX | MPT6-150 | 6.0 | 100 | 4.5 x 5.9 x .01 | 114 x 150 x 0.2 | 27.89 | 24.99 | 22.49 |
| 228081CX | MPT7.2-75 | 7.2 | 100 | 10.0 x 3.0 x .02 | 253 x 75 x 0.6 | 24.89 | 22.39 | 20.19 |
| 228099CX | MPT7.2-150 | 7.2 | 200 | 10.0 x 5.9 x .02 | 253 x 150 x 0.6 | 39.89 | 37.99 | 34.99 |
| 228101CX | MPT15-75 | 15.4 | 50 | 10.0 x 3.0 x .02 | 253 x 75 x 0.6 | 26.89 | 24.29 | 21.99 |
| 228110CX | MPT15-150 | 15.4 | 100 | 10.0 x 5.9 x .02 | 253 x 150 x 0.6 | 44.89 | 42.99 | 39.99 |

Remote Control Aircraft Series

Designed to be easily integrated with Remote Control Aircraft or anywhere weight is critical. These modules are very lightweight and can be soldered to from the back of the module via the extended copper tape, and have an extra edge seal for protection. We offer output currents with and without a strong pressure-sensitive adhesive for simple bonding.



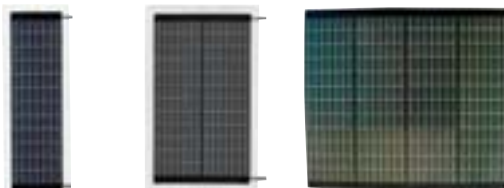
228128CX/228136CX 228144CX/228152CX

| Part No. | Product No. | Operating Voltage (V) | Operating Current (mA) | Size (L x W x T) | | Pricing | | |
|----------|--------------|-----------------------|------------------------|------------------|----------------|---------|---------|---------|
| | | | | Inches | mm | 1 | 10 | 100 |
| 228128CX | RC7.2-37 | 7.2 | 50 | 10.6 x 2.2 x .01 | 270 x 55 x 0.2 | \$16.89 | \$15.29 | \$13.79 |
| 228136CX | RC7.2-37PSA* | 7.2 | 50 | 10.6 x 2.2 x .01 | 270 x 55 x 0.2 | 19.39 | 17.49 | 15.79 |
| 228144CX | RC7.2-75 | 7.2 | 100 | 10.6 x 3.5 x .01 | 270 x 90 x 0.2 | 29.89 | 26.99 | 24.29 |
| 228152CX | RC7.2-75PSA* | 7.2 | 100 | 10.6 x 3.5 x .01 | 270 x 90 x 0.2 | 32.89 | 29.79 | 26.79 |

*PSA = Pressure Sensitive Adhesive

WeatherPro Series

The right choice for permanent outdoor applications that are directly exposed to the elements. These modules feature rugged construction, a UV-stabilized surface, extra edge seal for weather protection, and tin-coated copper leads that extend from the module.



228161CX 228179CX/228195CX 228208CX

| Part No. | Product No. | Operating Voltage (V) | Operating Current (mA) | Size (L x W x T) | | Pricing | | |
|----------|-------------|-----------------------|------------------------|-------------------|-----------------|---------|---------|---------|
| | | | | Inches | mm | 1 | 10 | 100 |
| 228161CX | P7.2-75 | 7.2 | 100 | 10.3 x 3.9 x .04 | 270 x 100 x 1.1 | \$39.89 | \$36.99 | \$33.99 |
| 228179CX | P7.2-150 | 7.2 | 200 | 10.3 x 6.9 x .04 | 270 x 175 x 1.1 | 59.89 | 54.99 | 49.99 |
| 228187CX | PT15-75 | 15.4 | 50 | 10.3 x 3.9 x .04 | 270 x 100 x 1.1 | 39.89 | 36.99 | 33.99 |
| 228195CX | PT15-150 | 15.4 | 100 | 10.3 x 6.9 x .04 | 270 x 175 x 1.1 | 59.89 | 56.99 | 52.99 |
| 228208CX | PT15-300 | 15.4 | 200 | 10.3 x 12.8 x .04 | 270 x 325 x 1.1 | 99.89 | 94.99 | 89.99 |

Solar Cell Grab Bag Assortment

About 40 irregular pieces in various sizes, shapes, and current ratings at 0.5VDC. Connect in series to increase voltage or connect in parallel to increase current.



| Part No. | Description | 1 | 10 |
|----------|-----------------------|--------|--------|
| 215255CX | Solar cell assortment | \$9.89 | \$8.99 |

Photovoltaic Solar Panel

- Output connection: conductive film requiring pressure contact or use of 3M conductive epoxy
- Rated 9.5VDC open circuit; 9VDC @ 0.06A in direct sunlight
- Size: 6.0"L x 6.0"W x 0.1"Thick



| Part No. | Description | 1 | 10 |
|----------|------------------|--------|--------|
| 141751CX | 0.5W solar panel | \$7.95 | \$7.19 |

Miniature Glass Solar Panel



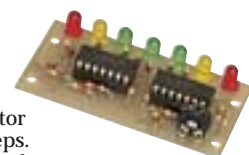
- Open circuit voltage: 16.5VDC in full sunlight
- Operating temperature range: -5° to +40°C
- Operating voltage: 12VDC @ 3mA
- Size: 3.6"L x 1.0"W

| Part No. | Description | 1 | 10 |
|----------|-------------------|--------|--------|
| 171985CX | Glass solar panel | \$7.89 | \$7.19 |

DC Voltage Monitor Kit

If battery status is important, you need this kit. It uses 7 LEDs to monitor 12VDC in 1V, 0.5V, or 0.25V steps. Monitor 8V or 5V in 0.25V steps. Great for boats, motor homes, model planes or race car Ni-Cads.

- 46-piece kit
- Difficulty level: beginner
- Dimensions: 2.7"L x 1.3"W



| Part No. | Mfr. Cross Ref. No. | 1 | 10 |
|----------|---------------------|--------|--------|
| 181833CX | VM-1 | \$8.95 | \$7.95 |

Phone 1-800-831-4242

Fax 1-800-237-6948

Order Anytime 24x7x365

Online www.Jameco.com

See pages 157-159 for Jameco's assortment of NiCAD and NiMH batteries.



Solar Photon Racer Kit

Build your own solar racer and tap into the power of the sun! This easy-to-assemble kit comes with everything you need, including a high-powered 1V, 500ma, ultra lightweight encapsulated solar cell and high-amp/low-voltage motor for maximum torque and speedy acceleration. Sleek transparent plastic body, made from recycled pop bottles, looks great as is, or add your own custom paint job. The Photon can travel 10 feet in three seconds on a smooth, flat surface, when exposed to full sun.

- Difficulty level: beginner
- Size: 8.5"L x 3.8"W x 2.0"H

| Part No. | Description | 1 | 10 |
|----------|----------------------|----------------------------|---------|
| 214738CX | Photon-P (painted) | \$26.95 \$24.95 | \$19.95 |
| 215183CX | Photon-1 (unpainted) | \$24.89 19.15 | 17.25 |

SALE

Forever Keychain Light

Miniature rechargeable light lasts for years and you'll never need to change a battery or bulb. Energized by solar cells, it is entirely self-contained. A squeeze turns on the LED emitting yellow light. Perfect for keychain or gift.

- Size: 2"Dia. x 0.5"Thick

| Part No. | Description | 1 | 10 |
|----------|------------------------|----------------------------|---------|
| 215212CX | Forever keychain light | \$49.89 \$16.19 | \$14.55 |

SALE

Clear Case with Gears

Motor case & gears. Build a 2-speed motor with the parts in this kit. Works with our solar motor (P/N 215263CX, see below).

Includes: Clear SM-15 plastic case

| Part No. | Description | 1 | 10 |
|----------|-----------------------|--------------------------|--------|
| 215280CX | Motor case with gears | \$6.89 \$5.69 | \$5.15 |

SALE

Solar Motor

- Operates on 0.5-3.0V @ 200mA start-up
- Runs at 80mA no load
- Low stall torque: 25-48 g-cm
- High RPM: 2500-5000 @ maximum efficiency
- Shaft diameter: 2mm
- Motor size: 1.0"Dia. x 1.5"L

| Part No. | Description | 1 | 10 |
|----------|-------------|--------|--------|
| 215263CX | Solar motor | \$2.89 | \$2.69 |

SALE

Mini-Panel Solar Cells

Ready to Use! No Soldering.

Encapsulated mini-panels utilize solar cells similar to those that power our satellites in space, yet they are safe and simple to use. Mini-panels allow for handling without the normal breakage and cell damage associated with fragile solar cells. 6" red/black lead wires attached. Modules may be connected to create different outputs.

- Size: 3.8"L x 2.5"W • Connection: lead

| Part No. | Prod. No. | VDC @ mA | Size (LxW) | 1 | 10 |
|----------|-----------|-----------|-------------|--------|--------|
| 200205CX | SOL2 | 0.5 @ 800 | 2.6" x 3.7" | \$7.95 | \$7.15 |
| 200221CX | SOL4 | 2.0 @ 200 | 3.0" x 3.7" | 8.99 | 7.99 |
| 215301CX | 4-1.5-200 | 1.5 @ 200 | 3.8" x 2.5" | 12.79 | 11.59 |
| 215319CX | 4-3.0-100 | 3.0 @ 100 | 3.8" x 2.5" | 14.29 | 12.89 |
| 215327CX | 4-6.0-50 | 6.0 @ 50 | 3.8" x 2.5" | 15.79 | 14.39 |



200221CX

Solar Energy Project Kit

Learn about the renewable energy available with solar power. Experimenter kit demonstrates the power of the solar cell to run an electric motor. Contains motor connected to solar cell, propeller, optical illusion spirals, and informative booklet.

- Difficulty level: beginner

| Part No. | Description | 1 | 10 |
|----------|--------------------------|---------------------------|--------|
| 215204CX | Solar energy project kit | \$11.69 \$8.79 | \$7.95 |



SALE

Photovoltaic Sun Tracker Solar Kit

This kit gives students and hobbyists a realistic taste of practical applications for solar power. Contains motor, gear train, solar cell, tracker device, and instruction booklet. Booklet explains how to make sundials and three other unusual solar projects.

| Part No. | Description | 1 | 10 |
|----------|-----------------------|----------------------------|---------|
| 215191CX | Sun tracker solar kit | \$29.89 \$23.25 | \$20.89 |

SALE

Motor and Gear Case

Combination motor and gear train in plastic case.

- Operates on 0.5-3.0V @ 0.5V
- Runs at 20mA • 6 RPM
- Strong torque @ 3V: 41 g-cm
- Shaft diameter: 2mm
- Size 3.0"L x 2.0"W x 1.5"D

| Part No. | Description | 1 | 10 |
|----------|---------------------|----------------------------|---------|
| 215271CX | Motor and gear case | \$17.39 \$14.25 | \$12.79 |



SALE

Eye-Catching Solar Powered Retail Display Device



See Jameco.com for Data Sheet.

Add eye-catching motion to your in-store advertising with this solar clip-on motion display. Just clip on to a fluorescent light bulb, add your own signage, turn the lights on and your in-store advertising sign comes to life. Long-life solar motor turns your sign counter clockwise. No batteries or AC power to worry about. No need to worry about tripping your motion sensing alarm systems. Just simply switch off your fluorescent light and the movement stops.

| Part No. | Description | 1 | 10 |
|----------|-----------------------------------|----------------------------|---------|
| 215221CX | Clip-on motion retail display ... | \$24.69 \$19.69 | \$17.75 |

Portable Solar Battery Charger

Charge your batteries with free solar power. Inexpensive, easy and safe to use—completely self-contained unit, no moving parts or cords. Uses satellite type solar cells that produce the highest power to weight ratio. Compact and lightweight, you can carry this charger with you anywhere. Re-energizes carbon-zinc, alkaline, nickel-cadmium (NiCad), and nickel-metal-hydride (NiMH) batteries.

- Size: 3.6"L x 3.1"W x 1.5"D

Includes: Battery adapter to charge, AA, C, and D type batteries.

| Part No. | Description | 1 | 10 |
|----------|----------------------|----------------------------|---------|
| 215239CX | Solar pocket charger | \$22.89 \$26.35 | \$23.69 |



SALE

Solar Button Cell Battery Charger

A convenient and safe way to revitalize worn down button cell batteries used in hearing aids, cameras, calculators, remote controls, clocks, alarms and more. LED indicator lets you know when the battery is being charged. Charges nickel-cadmium (NiCad), nickel-metal-hydride (NiMH), alkaline, mercury, and most zinc air (1.2V-1.5V) batteries.

- Size: 2.3"L x 1.4"W

| Part No. | Description | 1 | 10 |
|----------|---------------------------|----------------------------|---------|
| 215247CX | Solar button cell charger | \$16.89 \$13.49 | \$12.15 |



SALE

Our extensive line of Batteries can be found on pages 158-159.



Opening an account is easy!! Just give us a call and we'll take your information right over the phone.

Corporate Customers

Call 1-800-831-4242 for details today.



Motor Mind B Module

Motor control supports one or two line serial communication stream. DC motors with operating voltages as great as 30VDC and continuous currents of 2A can be controlled. An on board frequency counter has a range of 0-65,528Hz. Motor speed (254 steps) and direction can be controlled. Motors with tachometers or encoders may make use of the automated speed control function.



SALE

| Part No. | Description | 1 | 10 |
|----------|---------------------------|---------|---------|
| 143802CX | 9-pin motor mind B module | \$29.95 | \$22.97 |

Motor Mind C Single or Dual DC Motor Controller

The Motor Mind C has been designed to function as a versatile DC motor control system. The module is ideal for use in small robotics projects for controlling two-wheel axles. The motor connections may also be tied in parallel to control a single larger motor.



SALE

- Control 10-24V brushed DC motors
- Maximum continuous current 4.0A
- 40-pin DIP socket package
- Single or dual independent motor control options
- Over-current and over-temperature protection
- Serial control of 10-bit PWM signal
- Alternative analog control (0-5VDC) of PWM signal
- Alternative R/C (1-2ms) pulse control of PWM signal

| Part No. | Description | 1 | 10 |
|----------|--------------|---------|---------|
| 215546CX | Motor mind C | \$54.95 | \$49.95 |

BOB-3 Video Text Module

BOB-3 is Decade's third-generation low-cost videotext overlay module. BOB-3 lets your microcontroller or PC display up to 680 characters on standard video monitors and TV sets. With 63 user-definable characters, BOB-3 supports pseudo-graphics and multiple languages. BOB-3 generates video on-board, or automatically genlocks to your video source and superimposes characters over the image. Printable characters and commands control BOB-3 through a fast RS-232 style data link, much like a simple serial printer. BOB-3 is compatible with most microcontroller chips and modules, including the BASIC Stamp.



NEW



- Higher display density; 40x17 characters (680 max.)
- 254 ROM character patterns plus 63 user-definable RAM characters
- Character size control
- Horizontal (1 line) and vertical smooth scrolling (up to 16 lines)
- Software-controlled digital outputs (6)
- Faster & more reliable host communication
- Stand-alone operation, for simple source ID or fixed reticle applications
- Improved automatic video mode control

| Part No. | Description | 1 | 10 |
|----------|-------------------|---------|---------|
| 283733CX | Video text module | \$99.95 | \$94.95 |

Board of Education Full Kit

The new Board of Education Revision C carrier board has two major changes from the Revision B. The jumper near the servo connector will select either Vdd (5 V) or Vin (unregulated input voltage) to power the servos.



NEW

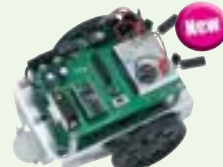
- The three-position power switch is either off (0), power to everything but servo connectors (1) or power to everything (2).
- Mechanically interlocked power supply to prevent dual connection of wall pack and 9V battery
- DB9 connector for programming and serial
- Female 10-pin dual row connector for optional AppMods
- P0 - P15 I/O pins

Includes: Board of Education carrier board, BASIC Stamp 2 module, pluggable wires, serial cable, CD-ROM and power supply

| Part No. | Parallax No. | 1 | 10 |
|----------|--------------|----------|---------|
| 283101CX | 28102 | \$118.95 | \$96.99 |

Boe-Bot Full Kit

Now with Robotics text v2.0! The new text includes 41 activities for the Boe-Bot and PBASIC 2.5 source code support. The Boe-Bot's flexibility stems from the fact that it's a rolling Board of Education. The Board of Education and Basic Stamp may be removed to be used as your platform for the other Stamps in Class curriculum. The robot may be programmed to follow a line, solve a maze, follow light, or communicate with another robot. Requires 4AA batteries (not included).



NEW



| Part No. | Parallax No. | 1 | 10 |
|----------|--------------|----------|----------|
| 282933CX | 28132 | \$228.95 | \$217.49 |

Basic Stamp Learning Tools

Basic Analog & Digital Parts & Text V1.2

Covers the essentials of 8-bit A/D & D/A conversion using a BASIC Stamp.

Introduces PBASIC commands for A/D conversion with resistor/capacitor circuits, interfacing an ADC0831 8-bit A/D converter, scaling analog outputs into meaningful digital values, analyzing time-varying signals and using PWM as analog output.



NEW

| Part No. | Parallax No. | 1 | 10 |
|----------|--------------|---------|---------|
| 282950CX | 28155 | \$43.95 | \$39.45 |

SX Tool Kit LITE

The popular SX Tech Tool Kit LITE is an excellent starting point to get you developing projects with SX-Key programming tool.

Includes: SX key Rev. F, SX tech board, (2) SX 28AC/DP 50 MIPS chips, (1) 50MHz resonator, (1) 4MHz resonator, SX key manual V 2.0 and software
162931CX: DIP-28, I/O: 20, 2k Flash, 136B RAM
283063CX: PQFP-48, I/O: 36, 4k x 12 Flash, 262B RAM



NEW

| Part No. | Parallax No. | Price |
|----------|--------------|---------|
| 176583CX | 45180 | \$98.95 |
| 162931CX | SX 28AC/DP | 4.99 |
| 283063CX | SX 48BD | 7.29 |

Servo Controller

Controls up to 16 servos and may be networked together so that two PSC's can control 32 servos using a single I/O line.

- 2400 to 384k baud serial port
- 63 ramp rates
- 16-bit PWM timers
- RS-232 serial protocol



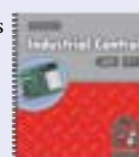
NEW

| Part No. | Parallax No. | 1 | 10 |
|----------|--------------|---------|---------|
| 282896CX | 28023 | \$38.95 | \$36.95 |

Industrial Control Parts & Text

An educational tutorial on process control with the BASIC Stamp.

Methods of process control are demonstrated in detail using a simple desktop heater system. A fan provides an external disturbance to the closed-loop system.



NEW

| Part No. | Parallax No. | 1 | 10 |
|----------|--------------|---------|---------|
| 176575CX | 28156 | \$58.50 | \$55.59 |

PIC BASIC Programming & Projects

Newnes Publications The BASIC language, as used by the most popular PIC compilers, is introduced from square one, with simple code used to illustrate each of the most commonly used instructions. PIC BASIC is the simplest and quickest way to get up and running - designing and building circuits using a microcontroller. (210 pages, 2001)
• Size: 6.1" x 9.2" • Weight: 0.8 lbs.



| Part No. | Description | 1 | 10 |
|----------|-----------------------|---------|---------|
| 200168CX | PIC BASIC Programming | \$34.95 | \$32.95 |

Microcontroller Application Cookbook Vol. 1 & 2

Vol. 1 is a wide-ranging collection of 113 interface circuits designed around the BASIC Stamp 2. For somebody getting started with microcontrollers. Discusses timing diagrams, interfacing, A/D conversion & how to control a high-voltage circuit with a solid-state relay.

Vol. 2 new collection of 154 interface circuits designed around the BASIC Stamp 2.



NEW

| Part No. | Parallax No. | 1 | 10 |
|----------|--------------|---------|---------|
| 282925CX | 28113 | \$58.95 | \$55.95 |

BASIC Stamps

BASIC Stamps are small computers using a variation of BASIC called PBASIC. They are ideal for controller apps including robotics, radio-controlled interface of a digital camera, industrial pallet stacker, health monitoring systems, and much more. The BS1-IC has 8 I/O lines, while the BS2-IC has 16 I/O lines. Each can be connected directly to buttons, LEDs, registers, and many other TTL level devices. Both allow you to store data in the EEPROM before downloading a BASIC program.

Includes: Embedded BASIC plus instruction sets; basic interpreter, EEPROM (non-volatile), a resonator and 5V regulator

| Specifications: | 127693CX | 130892CX |
|-----------------|---------------|---------------|
| EEPROM | 256 bytes | 2048 bytes |
| RAM | 16 bytes | 32 bytes |
| Cur. Draw @ 5V | 2mA run/20µA | 8mA run/100µA |
| Microcontroller | PIC16C56 | PIC16C57 |
| Program speed | 2000/sec. | 4000/sec. |
| # of I/O Pins | 8 | 16 + 2 serial |
| Package | 14-pin SIP | 24-pin DIP |
| Volts Required | 5-15VDC | 5-15VDC |
| Size | 1.4"L x 0.4"W | 1.2"L x 0.6"W |

| Part No. | Parallax No. | 1 | 10 |
|----------|--------------|---------|---------|
| 127693CX | BS1-IC | \$28.95 | \$28.29 |
| 130892CX | BS2-IC | 48.95 | \$43.95 |

BS2 Educational Starter Kit

This complete "Getting Started" kit is enhanced to include the What's a Microcontroller? (WAM) curriculum. Includes all of the BASIC Stamp hardware required to complete the activities and challenges. With this latest edition of the kit, you will receive the What's a Microcontroller? parts and text making this combination a bona fide "Getting Started" kit. With the WAM kit you'll get your feet wet through a series of over 40 activities designed to provide you with the best possible introduction to the world of BASIC Stamps.

Includes: BASIC Stamp 2 module, Board of Education Programming Board, BASIC Stamp Manual, CD-ROM, jumper wires and a serial cable

| Part No. | Parallax No. | 1 | 10 |
|----------|--------------|----------|----------|
| 282829CX | 27207 | \$158.95 | \$152.95 |

50MHz BASIC Stamp 2SX Module

High-speed version of BS2-IC.

- Microcontroller: Ubicom SX28AC
- Volts required: 5-12 VDC
- Program execution speed: 10,000 instructions/sec.
- EEPROM program size: 8 x 2k bytes, 4,000 instructions
- RAM size: 32 bytes
- Scratch pad RAM: 64 bytes
- Current draw @ 5V: 60mA run; 200µA sleep
- Number of I/O pins: 16 + 2 serial

| Part No. | Parallax No. | 1 | 10 |
|----------|-----------------|---------|---------|
| 159775CX | BS2SX-IC 24-pin | \$58.95 | \$52.95 |

Advanced Toddler Robot Kit

Walking robots have mechanical and software interdependencies that require in-depth examples and explanation. The Advanced Robotics text is an introduction to the Toddler robot's basic movements. Students using the Toddler robot will learn advanced embedded programming with BASIC, efficient code development, sensor feedback, and general control. Because of the number of possible movements, we consider the Toddler to be appropriate for those aged 14 and above.

Includes: 155-page Advanced Robotics text in the Stamps in Class style and the 351-page BASIC Stamp Manual

| Part No. | Parallax No. | 1 | 10 |
|----------|--------------|----------|----------|
| 282837CX | 27311 | \$248.95 | \$236.49 |

BS2P Professional Starter Kit

Provides the engineer with all the parts required to get started with the BSP2 microcontroller. The kit includes a selection of components and ready-to-run source code that will help master some of the exciting new features of the BSP2.

Includes: Manual, BS2P demo board, BS2P-24 microcontroller, DB9 (serial) programming cable, PCF8583 chip, 32.678kHz crystal, 24LC32 serial EEPROM, DS1822 thermometer, (3) 4.7K resistors, jumper wires

| Part No. | Parallax No. | 1 | 10 |
|----------|-------------------------|----------|----------|
| 202323CX | 27235 kit | \$207.95 | \$187.95 |
| 202331CX | 45185 BS2P40 adapter | 34.95 | 34.95 |
| 282984CX | 45187 BS2P40 demo board | 88.95 | 84.95 |

BASIC Stamp 2P Modules

In addition to the BS2-SX (left) features, includes commands for HD44780 compatible LCDs, Dallas Semiconductor 1-wire and Philips I2C parts.

- Voltage requirements: 5-12VDC
- Program execution speed: 12,000 instructions/sec.
- RAM size: 38 bytes (12 I/O, 26 variable)
- Scratch pad RAM: 128 bytes
- EEPROM program size: 2k x 8, 4,000 instructions
- Current draw @ 5V: 40mA run; 400µA sleep

184911CX: Number of I/O pins: 16 + 2 serial
184920CX: Number of I/O pins: 32 + 2 serial

| Part No. | Parallax No. | 1 | 10 |
|----------|------------------|---------|---------|
| 184911CX | BS2P24-IC 24-pin | \$78.95 | \$70.95 |
| 184920CX | BS2P40-IC 40-pin | 97.95 | 88.95 |

Stamp Works Kit

This all-in-one kit takes you beyond theory, into a well-written collection of 32 experiments that will teach you first class BASIC Stamp programming. You'll learn to get the most out of the BASIC Stamp and to increase its versatility by connecting to popular active and passive components.

Includes: Manual, BASIC Stamp Experiment Board, BS2-IC, 2x16 parallel LCD with custom cable, digital multimeter with 2 probes, wire cutter/stripper/pliers, three 100' rolls 22 AWG wire, screwdriver kit, photoresistor, 555 timer, 8-bit serial-to-parallel and 8-bit parallel chips, Dallas Semiconductor 1620 digital thermometer and real-time clock with 32.768MHz crystal, National Semiconductor ADC0831 8-bit A/D converter, Maxim 7219 8-digit LED display driver, National Semiconductor LM358 op-amp, stepper motor, servo, power supply, resistor assortment, capacitors, serial cable, CD-ROM and plastic box for parts

| Part No. | Parallax No. | Price |
|----------|--------------|----------|
| 184946CX | 27297 | \$348.95 |

BASIC Stamp 2 OEM Kit

A through-hole version of the popular BASIC Stamp modules.

- 20-pin SIP, standard 0.1" spacing
- PC board includes labeled component locations with visible traces between parts
- PBASIC interpreter and EEPROM are socketed to allow for replacement
- Programmed using PBASIC DOS or Windows® editor just like the BASIC Stamp modules

Includes: PBASIC interpreter, EEPROM, resonator, DB-9, resistors and transistors

| Part No. | Parallax No. | 1 | 10 |
|----------|--------------------------|---------|---------|
| 183071CX | 27291 BASIC® Stamp 2 kit | \$44.95 | \$42.95 |

BS2E-IC Basic Stamp Module

Using the Ubicom SX microcontroller, the BS2E-IC runs at the same speed as BASIC Stamp 2, but has the RAM and EEPROM size benefits of the BS2SX, without the speed and power consumption. Ideal for those who use the BS2 and would like more variable or program space. Programmed in Windows®.

- EEPROM (program) size: 2k x 8, ~ 4,000 instructions
- RAM: 32 bytes (6 I/O, 26 variable)
- Current draw @ 5V: 20mA run / 100µA sleep
- Microcontroller: Scenix SX28AC
- Program speed: 4,000 instructions / sec
- Number of I/O pins: 16 + 2 dedicated serial
- Voltage requirement: 5-12VDC
- Package: DIP-24

| Part No. | Parallax No. | 1 | 10 |
|----------|--------------|---------|---------|
| 283047CX | BS2E-IC | \$53.95 | \$51.95 |

High-Efficiency Robotic Servo

Excellent power-to-weight ratio for robotic projects.

- Supply voltage: 4.8-6 volts
- Torque: 49 oz.-in. @ 4.8V
- Speed: 16 seconds to 60°
- Can be operated by P/Ns 153648CX, 151001CX, pg 92 and 157059CX, see right
- Size: 0.8"W x 1.4"D x 1.6"H



| Part No. | Description | 1 | 10 |
|----------|---------------|---------|---------|
| 157067CX | Robotic servo | \$19.95 | \$17.95 |

Radio Control System

- 75MHz band • 1/4 mile range
- 2-channel proportional operation
- HP-2RNB mini AM receiver
- 2 HS-303 standard servos
- Size: 7.5"L x 2.25"W x 2.25"H
- Weight: 1.5 lbs.



Requires: 8 AA batteries, pg 157

| Part No. | Description | 1 | 10 |
|----------|----------------------|---------|---------|
| 157059CX | Radio control system | \$89.95 | \$79.95 |

Robot Drive Wheels

- Extremely high traction foam rubber compound
- 2 hubs with mounting hardware
- Size: 2.5"Dia. x 2.0"W



| Part No. | Description | 1 | 10 |
|----------|-------------------------|---------|---------|
| 157227CX | Drive wheels (2 pc set) | \$27.95 | \$24.95 |

Giant Robotic Ball-Bearing Servo

Extremely powerful!
Perfect for large robotic projects where power is a must.

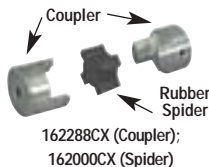
- Power supply volt.: 4.8-6 volts
- Torque: 161 oz.-in.
- Speed: 19 seconds to 60°
- Can be operated by P/Ns 153648CX & 151001CX, pg 92 and 157059CX, see above right



| Part No. | Description | 1 | 10 |
|----------|---------------------|---------|---------|
| 166351CX | Giant robotic servo | \$49.95 | \$44.95 |

Spider Couplers

- Used with motors
- 1 set screw/hub
- Hub OD: 0.625" Dia.
- Hub length: 0.56"
- Parts sold individually



| Part No. | Description | 1 | 10 | 50 |
|----------|---------------------|--------|--------|--------|
| 162288CX | .125" (3.18 mm) hub | \$1.35 | \$1.15 | \$0.86 |
| 161998CX | .197" (5.00 mm) hub | 1.09 | .89 | .59 |
| 162270CX | .250" (6.35 mm) hub | 1.35 | 1.19 | 1.09 |
| 162000CX | Rubber spider | 1.29 | 1.15 | 1.05 |

Climax Spider Shaft Couplers

- 209285CX/106606CX:
- 1 set screw per hub
- Hub OD: 0.625" Dia.
- Hub length: 0.56"
- 138288CX:
- 2 set screws (10-32 x 1/8)
- Size: 0.75"L x 0.5"D



| Part No. | Description | 1 | 10 | 100 |
|----------|----------------------|--------|--------|--------|
| 209285CX | .156" shaft hub | \$0.85 | \$0.65 | \$0.39 |
| 106606CX | .250" shaft hub | .75 | .69 | .59 |
| 138288CX | .250" sleeve coupler | 4.49 | 4.05 | 3.65 |

Gears and Shafts Kit

Bag of gears, shafts and accessories. Great for science projects. All parts fit 2mm shaft motors.



| Part No. | Description | 1 | 10 |
|----------|----------------------|--------|--------|
| 215298CX | Gears and shafts kit | \$5.89 | \$5.29 |

See pages 92-96 for our extensive line of motors and motor controllers.



26-Pitch Press Fit Gears and Gear Set

- Works with DC motors with 0.078" shaft diameter (use P/N 162392CX)
- Heavy-duty plastic construction
- Diametral pitch: 26
- Material: polyethylene resin

131801CX: 20-piece gear set includes 2 each of the following: T10, T20, T30, T40, T50 and 10 bushings

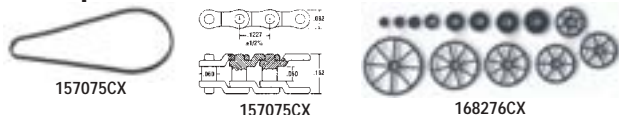
* Prepackaged: please order in increments of 10



| Part No. | Description | Bore Size | Pitch Dia. | Works w/ Shaft Dia. | Outer Gear Dia. | 1 | 10 | 100 |
|----------|--|-----------|------------|------------------------|--------------------|--------|--------|--------|
| 162069CX | 10 teeth gear | 0.149" | 0.378" | 0.156 (5/32)" | 0.455" | \$.89 | \$.69 | \$.55 |
| 162077CX | 20 teeth gear | 0.149" | 0.756" | 0.156 (5/32)" | 0.842" | .89 | .69 | .49 |
| 162085CX | 30 teeth gear | 0.149" | 1.142" | 0.156 (5/32)" | 1.225" | .89 | .69 | .49 |
| 162093CX | 40 teeth gear | 0.149" | 1.540" | 0.156 (5/32)" | 1.623" | .89 | .69 | .49 |
| 162106CX | 50 teeth gear | 0.149" | 1.900" | 0.156 (5/32)" | 1.985" | .89 | .69 | .49 |
| 162392CX | Bushing | 0.075" | — | 0.078 (5/64)" | — | * | .25 | .22 |
| Part No. | Description | | | | | 1 | 10 | 50 |
| 131801CX | Gear set – 20 pieces (see description above) | | | | | \$7.99 | \$7.29 | \$6.49 |

16-Pitch Sprocket Set and Chain

- Operates in high humidity and corrosive environments
- Chain links can easily be added or removed to adjust total length
- Chain tension load: 2.0 lbs.



168276CX: 14-piece sprocket set includes 1 each of the following: 8, 9, 10 teeth at 1/8" bore size; 12, 15, 16, 18, 20, 24, 30, 32, 36, 40 and 48 teeth at 1/4" bore size

| Part No. | Description | 1 | 10 | 25 |
|----------|--|--------|--------|--------|
| 157075CX | Drive chain (12" long) | \$9.95 | \$8.95 | \$7.95 |
| 168276CX | Sprocket set - 14 pieces (see description above) | 29.49 | 26.49 | 23.89 |

Hub and 48-Pitch Gear Set

- Low coefficient of friction requires little or no lubrication
- Residual stress removed by annealing process

168284CX: 12-piece gear set includes 1 each of the following: 10 teeth at 3/32" bore size; 14 and 16 teeth at 1/8" bore size; 20, 24, 30, 36, 44, 54, 66, 84 and 100 teeth at 1/4" bore size



| Part No. | Description | 1 | 10 | 25 |
|----------|---|--------|--------|--------|
| 157104CX | 1/4" bore aluminum mounting hub w/ set screws | \$4.95 | \$4.49 | \$3.95 |
| 168284CX | Gear set - 12 pieces (see description above) | 39.95 | 34.95 | 31.95 |



Selectable Gear Box Kit

Great 35-piece kit for learning about gear ratios or to add a gear box to your robot project. See-through case has gear ratios from 6.8:1 to 807.93:1.

- Difficulty level: intermediate



| Part No. | Description | Dimensions | Price |
|----------|---------------------------------------|-----------------------|---------|
| 145509CX | Selectable gear box kit with 3V motor | 2.5"L x 1.1"W x 1.5"H | \$15.95 |

Even lower OEM pricing for larger orders!

Corporate Customers

Call 1-800-831-4242 for details today.

OWI® Robotic Arm Trainer Kit ▲ 109-piece kit

Five Axes of Motion

Teaches basic robotic sensing and locomotion principles while testing your motor skills as you build and control the arm. This unit can be commanded or instructed through its five-switch wired controller with lights to grab, release, lift, lower, rotate wrist, and pivot sideways. Five motors and joints allow flexibility.

- Max. length outwards: 14.2"
- Max. height upwards: 20.1"
- Grip opens to 2" wide
- Max. lifting capacity: 4.6 oz.
- Shoulder movement @ 120°
- Elbow moving range @ 135°
- Wrist rotation clockwise or counter clockwise @ 340°
- Rotates left to right at the base @ 350°
- Weight: 4.5 lbs.

Requires: 4 D batteries (recommend P/N 215845CX, pg 157)

| Part No. | Description | 1 | 10 |
|----------|--|---------|---------|
| 157366CX | Robotic arm kit (unassembled) | \$74.95 | \$67.49 |
| 159345CX | Robotic controller software (DOS 4.2 & up, Windows® 95/98) | 84.95 | 76.49 |

OWI® Soccer Jr. Kit ● 242-piece kit

New and improved Soccer Jr. kit with the addition of a third motor used to catch and shoot the ball (included). This kit has 6 operational legs, a retrieving and kicking mechanism, and a wired controller to activate movement and ball control. Runs forward, backward, turns left and right, and executes a 360° turn.

- Assembled electronic PC board
- 6 legs driven by 2 DC motors
- Power usage: approximately 900mA max.
- Wire controlled

Requires: 4 AA batteries (recommend P/N 198707CX, pg 157)

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|-----------------------|------------|---------|---------|
| 215861CX | OWI-9820 | 6.7"L x 3.4"W x 5.5"H | 2.0 | \$36.05 | \$32.79 |

OWI® Obstacle Avoidance Robot Kit ▲ 107-piece kit

Six crank motion legged robot utilizes an infrared light sensing system to find obstacles and maneuvers itself around them. This IR detection kit includes an infrared diode, photo diode, IC, 2 DC motors and all hardware.

| Part No. | Description | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|------------------------|------------|---------|---------|
| 140821CX | Spider kit | 12.0"L x 7.0"W x 3.5"H | 1.2 | \$59.95 | \$53.95 |

OWI® Rockit Robot Kit ▲ 96-piece kit

Explore the fundamentals of robotics with this informative and entertaining robot kit. An intelligent robot with a touch/sound sensor, if it comes in contact with an object or hears a loud noise, it automatically reverses, then turns left.

- Soldering required of PCB
- Size: 4.5"L x 5.0"W x 3.5"H

Requires: 2 AA batteries (recommend P/N 151087CX, pg 157)

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|---------------------|------------|---------|---------|
| 199603CX | Rockit robot Expert | 1.0 | \$21.95 | \$19.55 |

OWI® Line Tracking Robot Kit ▲ 134-piece kit

Watch as this robot follows a black line you specify. Utilizes infrared light to detect the line and control direction. This educational kit utilizes the same line follow principle of many industrial robots.

| Part No. | Description | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|------------------|------------------------|------------|---------|---------|
| 140839CX | Line tracker kit | 12.0"L x 7.0"W x 3.5"H | 1.1 | \$49.95 | \$44.49 |

velleman Micro Bug Kits ■

A bright colored miniature bug shaped robot that is attracted to light.

- Two open chassis sub-miniature motors
- Adjustable light sensitivity that suits almost any light conditions
- LED "eyes" indicate driving direction
- Stops in total darkness
- Size: 4.0" x 2.4"

Requires: 2 AAA batteries (recommend P/N 249181CX, pg 157)

| Part No. | Product No. | Description | Pieces | 1 | 10 |
|----------|-------------|-------------|--------|---------|---------|
| 200328CX | MK127 | Running | 26 | \$18.95 | \$16.95 |
| 200336CX | MK129 | Crawling | 29 | 21.45 | 19.35 |

Build It Yourself!

velleman Computer Control Interface Kit ▲ 301-piece kit

Connects to printer port without interruption of the printer. Works well in control applications such as the DC dimmer (P/N 128901CX, below).

- 16 I/Os with opto coupler
- Analog outputs: eight 6-bit (64 steps), one 8-bit (256 steps)
- Analog inputs: four 8-bit (256 steps)
- Full opto-isolation with computer
- 3.5" disk with routines in C++, QBASIC, Turbo Pascal

Requires: DB25 cable (P/N 65787CX, pg 71)

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|---------------|------------|----------|----------|
| 128928CX | K8000 | 9.3"L x 5.3"W | 1.7 | \$139.95 | \$125.95 |

velleman DC Controlled Dimmer Kit ▲ 37-piece kit

This circuit is ideal for replacing an existing dimmer switch; can be used in a control application via P/N 128928CX interface board, above.

- Supply voltage: 110VAC or 220-240VAC, 50 or 60Hz
- Can be used for 24VAC
- DC control voltage: 0-10VDC
- Maximum control current: 2.25mA @ 12V

| Part No. | Product No. | Dimensions | 1 | 10 |
|----------|-------------|-----------------------|---------|---------|
| 128901CX | K8003 | 3.0"L x 2.0"W x 1.8"H | \$21.95 | \$19.95 |

velleman Remote Control by Telephone ▲ 116-piece kit

- Possible to turn on or off up to three devices (switching lights on-off; check alarm systems; water heater on-off; garage doors)
- Check conditions of a switch (open or closed)
- Protected by a user-defined code
- Pick up after 3 or 8 rings (selectable)

Requires: 12VAC @ 300mA (recommend P/N 101258CX, pg 152)

Includes: Relay for one output (10A/250VAC)

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|---------------|------------|---------|---------|
| 120678CX | K6501 | 4.1"L x 5.1"W | 0.7 | \$69.49 | \$62.59 |

Universal Relay Controller Card Kit ▲ 64-piece kit

An electronic controller that switches higher currents while providing insulation between the controller and the controlled devices.

- 8 channels expandable to 15 with 8 each P/N 144186CX, below
- Relay output: maximum 5A/220VAC
- TTL or 5V CMOS inputs (recommend P/N 34315CX, pg 27)
- Contact voltage: 12VDC/250mA

Requires: 220 or 125VAC power source

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|---------------------------|---------------|------------|---------|---------|
| 128910CX | K6714 | 8.3"L x 5.9"W | 1.8 | \$59.95 | \$53.95 |
| 144186CX | VR15M121C relay (JZC-22F) | | 0.028 | 3.79 | 3.39 |

Robot Builder's Bonanza

TAB Publishing This fascinating guide offers a complete, unique collection of tested and proven project modules that you can mix and match to create an almost endless variety of highly intelligent and workable robot creatures. (753 pages, 2001)

- Size: 7.3" x 9.2"
- Weight: 2.5 lbs.

| Part No. | Description | Price |
|----------|-------------------------|---------|
| 137171CX | Robot Builder's Bonanza | \$17.95 |

Robot Builder's Source Book

McGraw-Hill Everything you need to find and acquire common and uncommon robotic parts and supplies. Jameco and over 2500 mail order suppliers and other sources, including local and international businesses all cross-referenced and categorized to make your search quick and easy. (711 pages, 2003)

- Size: 8.5" x 10.0"
- Weight: 3.9 lbs.

| Part No. | Description | Price |
|----------|-----------------------------|---------|
| 213461CX | Robot Builder's Source Book | \$16.95 |

velleman Parking Radar Kit ■ 55-piece kit

Parking in tight places can be difficult, but this unit can tell you when you have come within an adjustable preset distance of the object behind you.

- Detection range: 5cm – 1.5m; angle: 5°
- Transmitter frequency: 40kHz
- PCB size: base (4.9"L x 1.9"W) sensor (3.8"L x 1.1"W)

Requires: 10-15VDC @ 16mA max (recommend P/N 100095CX, pg 150) or auto power plug (recommend P/N 115001CX, pg 83)

| Part No. | Product No. | | 1 | 10 |
|----------|-------------|--|---------|---------|
| 129120CX | K3502 | | \$39.95 | \$34.95 |

Ultrasonic Motion Detector Kit ■ 49-piece kit

Detect motion/movement 13 - 23 ft. away and trigger an alarm w/ this kit.

- 2 boards: one with matched pair of ultrasonic transducers to detect motion from 13 to 23 ft. away; 2nd board contains crystal controlled oscillator & all circuits
- Switchable latch, red LED indicator
- Solder pad output to drive external relay or circuits
- Size: main board: 2.8"L x 2.0"W x 0.8"H; transducer board: 2.8"L x 0.6"W x 0.9"H

Requires: 9V battery (recommend P/N 151095CX, pg 157)

| Part No. | Description | 1 | 10 |
|----------|----------------------|---------|---------|
| 125090CX | Ultrasonic alarm kit | \$29.95 | \$26.95 |

Flex Sensor

- Maximum resistance: 30kΩ to 40kΩ, proportional to the degree of flexing or bending
- Applications: virtual reality data gloves, robotic, bio-metric, physics and engineering
- Nominal resistance: 10kΩ

| Part No. | Description | 1 | 10 |
|----------|-------------|---------|---------|
| 150551CX | Flex sensor | \$12.95 | \$11.65 |

MONDO•TRONICS

Flexinol Muscle Wires®

These unique nickel-titanium alloy Muscle Wires® actually shorten in length when electrically powered, and can lift thousands of times their own weight. • Length: 1 meter

How it works... Pressing the switch lets power flow from the batteries through the Muscle Wire®, heating it and causing it to contract and raise the lever and lift the weight. When power is removed, the Muscle Wire® cools and relaxes, and the weight helps it return to its starting position.

- 141348CX: Muscle Wires® Book & Deluxe Kit
- Kit includes one each Flexinol 100, 150 and 250 Muscle Wires® and Project Book
- 3 meters of wire

Includes: Crimps and instructions

| Part No. | Description | Wire Dia. (microns) | Linear Resistance (ohm/m) | Typical Current (mA) | Deform Weight* (grams) | Recovery Weight* (grams) | Typical Rate** | Pricing | |
|----------|-------------|---------------------|---------------------------|----------------------|------------------------|--------------------------|----------------|---------|---------|
| | | | | | | | | 1 | 10 |
| 141321CX | 100LT | 100 | 150 | 180 | 28 | 150 | 33 | \$15.95 | \$14.49 |
| 141874CX | 150LT | 150 | 50 | 400 | 62 | 330 | 20 | 16.95 | 15.29 |
| 160055CX | 375LT | 375 | 8 | 2750 | 393 | 2000 | 4 | 19.95 | 17.95 |

* Multiply by 0.0098 to get force in Newtons ** Cycles per minute, in still air, at 20° Centigrade

| Part No. | Description | 1 | 10 |
|----------|-------------------|---------|---------|
| 141348CX | Muscle Wires® kit | \$56.95 | \$52.95 |

Electronic Locks

velleman Code Lock Kit ■ 67-piece kit

- Switch an alarm on and off or open door locks
- 3000+ codes possible
- LED indicates state
- Pulse or switch outputs
- Relay contact rating: 5A/220V

Requires: 9-15VDC (P/N 163491CX, pg 150) or 8-12VAC (P/N 100061CX, pg 152) power supply

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|---------------|------------|---------|---------|
| 127554CX | K6400 | 1.7"L x 1.8"W | 0.5 | \$29.95 | \$26.95 |

velleman Scrolling Message Kit ■ 76-piece kit

Create your own scrolling message with this 35-LED graphic display kit. Press "SET" to change a particular character, "UP or DOWN arrow" to select the character, and end your scrolling message with the "<" character.

- 35-LED display
- Maximum 16 characters
- Adjustable scrolling speed

Requires: 9 to 12VDC @ 20mA (recommend P/N 100845CX, pg 150)

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|-----------------------|------------|---------|---------|
| 200310CX | MK124 | 3.5"L x 2.6"W x 1.8"H | 0.2 | \$24.95 | \$22.45 |

velleman 3-Channel Light Organ Kit ■ 80-piece kit

Add a 3-channel dancing light display to your music. Each channel displays a different range of sound.

- Frequency ranges are adjustable
- Microphone input
- Maximum load 2A per channel
- Each output has individual sensitivity control

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|-----------------------|------------|---------|---------|
| 131684CX | K8017 | 6.7"W x 5.6"D x 1.7"H | 1.2 | \$54.95 | \$49.95 |

velleman Stroboscope Kit ▲ 19-piece kit

Make your own snapshots and "lightning" light effects. Flash frequency adjustable from 2 - 20Hz.

- Input: 110VAC

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|---------------|------------|---------|---------|
| 117639CX | K5300 | 3.5"L x 2.6"W | 0.5 | \$18.95 | \$16.95 |

velleman Flashing LED Sweetheart Kit ■ 46-piece kit

This kit shows a beating heart. Great for decorations!

- Power consumption: 8mA

Requires: 8 to 15VDC wall transformer (P/N 100095CX, pg 150) or 9VDC battery (P/N 151095CX, pg 157)

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|-----------------------|------------|---------|---------|
| 147555CX | MK101 | 2.5"L x 2.4"W x 1.2"H | 0.1 | \$11.95 | \$10.95 |

velleman Flashing LED Kit ■ 23-piece kit

Activates 2 flashing LEDs for applications such as model constructions. Adjustable flashing speed by potentiometers.

- 5.5" wire w/ 9V battery connector
- Minimum consumption: 4mA

Requires: 9VDC battery (P/N 151095CX, pg 157)

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|-----------------------|------------|--------|--------|
| 147580CX | MK102 | 1.3"L x 1.4"W x 0.6"H | 0.1 | \$7.95 | \$7.19 |

Light Sensitive Relay Kit ■ 20-piece kit

Build a stable and advanced circuit that uses light to control a SPDT 10A relay.

- Dimensions: 2.4"L x 1.3"W x 1.0"H

Requires: 12VDC power supply (recommend P/N 100095CX, pg 150)

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-----------------|------------|---------|---------|
| 136223CX | Light relay kit | 0.1 | \$12.95 | \$11.65 |

IR LED Illuminator Kit ● 41-piece kit

- Improve low-light camcorder and CCD camera images without visible light
- 36 high powered infrared LEDs
- At 24' the beam is approximately 3.5' across

Requires: 12-15VDC power supply (recommend P/N 114825CX, pg 150)

| Part No. | Description | Dimensions | 1 | 10 |
|----------|--------------------|------------|---------|---------|
| 157964CX | IR illuminator kit | 2" Dia. | \$16.95 | \$15.29 |

velleman RF Code Lock Receivers

- Use for car alarms, garage doors, door locks, lighting control, etc. • Range: 100 ft.
- Over 8000 selectable codes
- Use several transmitters with one receiver
- Receivers feature relay output (10A change-over or pulse contact)



Requires: 12-16VDC @ 100mA (recommend P/N 100095CX, pg 150)

| Part No. | Description | Kit Pieces | Wt. (lbs.) | 1 | 10 |
|----------|---------------------------|------------|------------|---------|---------|
| 173235CX | K6727 2-ch receiver (RF) | 75 | 0.5 | \$39.95 | \$35.95 |
| 117655CX | K6707A 1-ch receiver (RF) | 75 | 0.5 | 29.95 | 26.99 |

Infrared Remote-Control Receiver Modules



- Commonly used in TVs, VCRs, audio equipment, car stereos and home computers that receive signals or data via infrared • Size: 0.6"L x 0.6"W x 0.5"H
- Single unit module which incorporates a PIN diode & a receiving preamplifier IC
- Excellent mechanical strength and electrical stability • 940nm wavelength

| Part No. | Description | Voltage Input | 1 | 10 |
|----------|--------------------|----------------|--------|--------|
| 220628CX | 38.0kHz, side view | 4.5VDC @ 1.4mA | \$2.99 | \$2.69 |
| 165008CX | 40.0kHz, top view | 5VDC @ 5mA | 2.99 | 2.24 |
| 176541CX | 56.8kHz, side view | 5VDC @ 2mA | 1.69 | 1.27 |

Infrared Transmitter/Receiver Kit 26-piece kit

Transmit a 40kHz modulated I-R signal to a distance of 6' to 8'. Can be used as a remote switch to turn objects OFF and ON by infrared. The IR receiver will only receive 40kHz modulated infrared light. You can configure the output for normally ON or normally OFF operation. This allows you to use it as a security sensor or as a remote control switch. You can use the receiver to test TV or VCR remote controls.

- Transmitter size: 1.0"L x 0.8"W • Receiver size: 1.4"L x 1.2"W

Requires: 6 to 15VDC battery (recommend P/N 151095CX, pg 157)

| Part No. | Mfr. Cross Ref. No. | Description | 1 | 10 |
|----------|---------------------|----------------------|---------|---------|
| 177092CX | IR-2 | Transmitter/receiver | \$24.95 | \$22.49 |

Function Generator Kit 21-piece kit

Sine, Triangle and Square Wave

Great for prototyping electronic circuits, whether analog or digital! Produces sinusoidal, triangular, and square waveforms at frequencies continuously variable from 1Hz to 100kHz.

- 21-piece kit (chip, components, PC board, hardware)

Requires: 12VDC supply or ±6VDC split supply (recommend P/N 20626CX, pg 240)

| Part No. | Mfr. Cross Ref. No. | Dimensions | 1 | 10 |
|----------|---------------------|---------------|---------|---------|
| 20685CX | JE2206 | 4.1"L x 1.5"W | \$24.95 | \$22.95 |

Fiber Optic Kit

Fiber Optic Lab Kit

Experiment guide contains nine fiber optic experiments. Kit contains all the fiber optic and electronic components needed to complete the experiments.

- Fiber optic cable transmission
- Characteristics of connectors and splices
- Speed of opto-electronic devices
- Making a light guide
- Fiber optic transmitter
- Index-matching procedures
- Fiber termination techniques
- Receiver design
- Weight: 0.7 lbs.



| Part No. | Description | 1 | 10 |
|----------|------------------------|---------|---------|
| 169914CX | Lab course and lab kit | \$46.89 | \$42.29 |

Crossbow

Accelerometers

141591CX 1-Axis and 141575CX 3-Axis Accelerometers

- Dynamic range and excellent frequency response
- Shielded cable: 2'L pigtail • Acceleration range: ±4g
- Size: 1.9"L x 1.0"W x 0.8"H



Requires: 5VDC power supply (not included – recommend P/N 164101CX, pg 149)

| Part No. | Description | Axis | Current | 1 | 10 |
|----------|-------------|-------|---------|----------|----------|
| 141591CX | CXL04LP1 | One | 8mA | \$149.95 | \$134.89 |
| 141575CX | CXL04LP3 | Three | 24mA | 339.95 | 319.95 |

Accelerometer Evaluation Boards

Dual Axis

Evaluation board for the ADXL202, dual axis, 2g accelerometer.



177308CX: features RS-232 interface to connect to PC serial ports. Also includes software to display real time acceleration data.

| Part No. | Product No. | Description | 1 | 10 |
|----------|---------------|-------------|---------|---------|
| 177287CX | ADXL202EB | Dual axis | \$59.95 | \$53.95 |
| 177308CX | ADXL202EB-232 | w/ RS-232 | 159.95 | 144.95 |



PRECISION NAVIGATION, INC.

Vector 2X Compass Module

- 2" accuracy, 1" resolution
- 5Hz sampling rate • Hard iron calibration
- Pin selectable BCD or binary output format
- Raw uncalibrated magnetometer output optional
- 3-wire serial output format (compatible with Motorola SPI and National Microwire)
- Master or slave capability for data clock generation



Requires: Power supply 5V @ 10mA (recommend P/N 112070CX, pg 149)

| Part No. | Description | 1 | 10 |
|----------|------------------|---------|---------|
| 126703CX | Vector 2X module | \$49.95 | \$44.95 |

Senix

Distance Sensor Modules

Sends out a sound wave 20 times per second and calculates the distance based on the time differential between send and receive signals. The distance is represented by an output voltage from 0 to 10VDC (P/N 134105CX) or RS-232 signal (P/N 151482CX).

- Sensing range: 4" to 60" • Sensor diameter: 1.8"
- Board size: 2.8"L x 1.8"W x 0.9"H • One-year warranty

Requires: 15 to 24VDC @ 40mA (not included), recommend P/N 114825CX, pg 150

- 134105CX: • Output voltage: 0-10VDC
- Each 1VDC increment = 5.6" (e.g.: 1VDC output = 9.6")

- 151482CX: • RS-232 output

Includes: Software diskette and computer cable

| Part No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-------------------------|------------|----------|----------|
| 134105CX | Sensor – voltage output | 0.2 | \$159.95 | \$143.95 |
| 151482CX | Sensor – RS-232 output | 1.0 | 179.95 | 161.95 |

velleman

Metal Detector 22-piece kit

- Proximity range adjustable to 8cm
- Size: 2.1"L x 2.1"W
- LED indicator; can use a buzzer as an option (P/N 105822CX, pg 108)

Requires: 9V battery (recommend P/N 151095CX, pg 157)

| Part No. | Product No. | Description | 1 | 10 |
|----------|-------------|----------------|---------|---------|
| 129091CX | K7102 | Metal detector | \$11.95 | \$10.95 |

velleman

Water Leak Alarm Kit 7-piece kit

Alarms you of water overflows and leaks!

- Water sensor can be placed at a distance by cutting the board and using wires for connection
- Incorporated loud alarm buzzer

Requires: 9VDC battery (P/N 151095CX, pg 157)

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|---------------|------------|---------|--------|
| 157315CX | MK108 | 2.8"L x 1.8"W | 0.1 | \$10.95 | \$9.95 |

Super Snooper Big Ear Audio Amplifier Kit

17-piece kit

Listen through walls, hear conversations across the room or listen to sounds a block away. Add a parabolic reflector or mount the microphone in a tube to isolate unwanted noise and make a directional microphone.

• Operating voltage: 9VDC (recommend P/N 151095CX, pg 157)

Includes: Instructions, outputs for speakers or headphones and schematic

| Part No. | Description | Dimensions | 1 | 10 |
|----------|---------------------|-----------------------|---------|--------|
| 151204CX | Audio amplifier kit | 1.8"L x 1.0"W x 0.6"H | \$10.95 | \$9.95 |

FM Stereo Transmitter Mini Kit

37-piece kit

Run your own FM radio station! Plug any stereo signal into this unit and it will be transmitted to any FM radio. Tuneable from 76-108MHz. Plug in a CD player or tape deck and you have a wireless link to an FM radio within 200 feet. Clarity is approximately 40dB stereo separation.

Requires: 9VDC power supply (recommend P/N 151095CX, pg 157)

| Part No. | Description | Dimensions | 1 | 10 |
|----------|---------------------|---------------|---------|---------|
| 151239CX | FMST-100 stereo kit | 2.7"L x 2.0"W | \$29.95 | \$26.95 |

FM Transmitter

26-piece kit

Mini FM transmitter (100-108MHz) ideal for family broadcasts, baby monitors and security. May be received by any portable FM radio or tuner.

• Integrated pre-amplifier (sensitivity 5mV)

Requires: 9-12VDC power supply (recommend P/N 20626CX, pg 240)

| Part No. | Product No. | Dimensions | 1 | 10 |
|----------|-------------|---------------|---------|---------|
| 117604CX | K1771 | 1.8"L x 2.8"W | \$12.49 | \$11.29 |

FM Radio Kit

65-piece kit

Easy to assemble – no coils to wind. Receives the complete FM band of 88 – 108MHz.

• With on/off switch, volume control, and LED indicator

• Single adjustment

Requires: 12VDC @ 100mA power supply (recommend P/N 100095CX, pg 150)

| Part No. | Product No. | Dimensions | 1 | 10 |
|----------|-------------|---------------|---------|---------|
| 211772CX | MK118 | 4.8"L x 3.3"W | \$21.95 | \$19.95 |

One-Chip AM Radio Kit

39-piece kit

• Uses an IC that performs as an RF amp, detector and AGC in an AM radio

Requires: 9V battery (recommend P/N 151095CX, pg 157)

| Part No. | Description | Dimensions | 1 | 10 |
|----------|--------------|-----------------------|---------|---------|
| 125161CX | AM radio kit | 4.0"L x 1.3"W x 0.5"H | \$13.95 | \$12.95 |

TV Notch Filters Mini Kit

33-piece kit

Eliminates unwanted TV channels or interference that alters sound and video. Works on cable channels 2 to 22 and 97 to 99.

| Part No. | Description | Dimensions | 1 | 10 |
|----------|----------------------|---------------|---------|---------|
| 151167CX | DF-222 TV filter kit | 3.2"L x 0.9"W | \$15.95 | \$14.49 |

10 LED Mono VU Meter Kit

36-piece kit

• Instant visualization of audio signal levels

• Easy hook up to a LINE level (LOW input) signal source

• Special input (HIGH input) is provided, which allows direct connection to a speaker output

• Frequency range: 20Hz to 30kHz

• Dot or bar display mode selectable

Requires: 15VDC @ 300mA max. power supply (P/N 189982CX, pg 151)

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|---------------|------------|---------|---------|
| 147643CX | K4304 | 2.7"L x 1.4"H | 0.3 | \$21.95 | \$19.75 |

Universal Mono Pre-Amplifier

17-piece kit

For audio applications with insufficient input signal.

• Output impedance: 1k Ω • Max. input signal: 40mV

• Frequency range: 20Hz - 20kHz \pm 3dB

• Adjustable output level: 40dB max.

Requires: 10/30VDC @ 10mA power supply (recommend P/N 20626CX, pg 240)

| Part No. | Product No. | Dimensions | 1 | 10 |
|----------|-------------|---------------|--------|--------|
| 117612CX | K1803 | 1.2"L x 1.8"W | \$8.95 | \$7.95 |

1-Watt Amplifier Kit

9-piece kit

Amplifies audio signals for an 8 Ω speaker. Use on P/N 125111CX and P/N 147838CX.

• Ideal part for larger projects & battery powered circuits

• Circuit designed around a single TDA7052 IC

• Battery and battery snap not included (recommend P/N 151095CX, pg 157 and 11279CX, pg 160)

• Drives 8 Ω speaker (not included)

| Part No. | Description | Dimensions | 1 | 10 |
|----------|----------------|-----------------------|--------|--------|
| 125111CX | 1 watt amp kit | 1.2"L x 1.2"W x 0.9"H | \$6.29 | \$5.59 |

Super Mini 2.5W Audio Power Amplifier

27-piece kit

This circuit has incredibly tiny dimensions. The IC has a pre-amplifier and power amplifier, which can be used separately by cutting a jumper.

• Operating frequency: 60Hz to 15kHz

• Max. output power: 2.5W (4 Ω , 12V)

• Short circuit/thermal overload protection

Requires: 4.5-15VDC @ 400mA power supply (recommend P/N 114825CX, pg 150)

| Part No. | Product No. | Dimensions | 1 | 10 |
|----------|-------------|-----------------------|---------|--------|
| 127175CX | K2637 | 1.7"L x 1.3"W x 1.1"H | \$10.95 | \$9.95 |

7-Watt Amplifier Kit

22-piece kit

• Music output power: 7W/4 Ω

• RMS output: 3.5W/4 Ω & 2W/8 Ω

• Harmonic distortion: 0.05% (1W/1kHz)

• Frequency response: 20 to 20kHz (-3dB)

• Short circuit/overload protection

Requires: 15VDC (8-18VDC) @ 500mA power supply (recommend P/N 155803CX, pg 151); speakers

| Part No. | Product No. | Dimensions | 1 | 10 |
|----------|-------------|---------------|---------|---------|
| 127255CX | K4001 | 2.2"L x 1.4"W | \$13.95 | \$12.49 |

18-Watt Bridged Mono Amplifier Kit

17-piece kit

• Drives 3-8 ohm speakers

• Based on the Hitachi HA13118 amplifier IC

Requires: 12VDC supply (recommend P/N 100095CX, pg 150)

| Part No. | Description | 1 | 10 |
|----------|-----------------------|---------|---------|
| 136207CX | 18 watt amplifier kit | \$15.59 | \$13.95 |

20-Watt RMS Amplifier Module

• Input signal: 250mV • Maximum current: 2A

• Output impedance: 4-8 Ω (mono)

• Terminals: .100" matching disconnect solderless terminals

• Size: 2.8"L x 2.8"W x 1.6"H

Requires: Power supply: 12V @ 2A (recommend P/N 143714CX, pg 146)

| Part No. | Description | 1 | 10 |
|----------|---------------------|---------|---------|
| 147838CX | E-11 mono amplifier | \$24.95 | \$22.49 |

30-Watt Stereo Power Amplifier

38-piece kit

General purpose stereo amp for audio applications.

• RMS output: dual 15W @ 4 Ω or dual 10W @ 8 Ω

• Frequency bandwidth: 7Hz to 60kHz (-3dB) • Separation: 70dB

• Supply voltage: 24VCT @ 2A (recommend P/N 101864CX, pg 153)

| Part No. | Product No. | Dimensions | 1 | 10 |
|----------|-------------|---------------|---------|---------|
| 129138CX | K4003 | 2.8"L x 2.0"W | \$29.95 | \$26.95 |

velleman

Sound Generator Kit ■ 61-piece kit

- Produces 10 different sounds w/ adjustable speed: guns, sirens, car engines, explosions, tunes, screeching tires, phaser guns
- Push-button keyboard

Requires: 8Ω/1 watt speaker; 9V battery (recommend P/N 151095CX, pg 157)



| Part No. | Product No. | Dimensions | 1 | 10 |
|----------|-------------|---------------|---------|---------|
| 127562CX | K4401 | 2.8"L x 2.8"W | \$29.95 | \$26.95 |

Siren Kit ● 20-piece kit

- Oscillator is off until you press the switch, then a rising tone is produced until a steady value is reached
- If switch is released, tone starts dropping until it cuts off
- Circuit designed around a dual op amp connected as an oscillator and driver

Requires: 9V battery (recommend P/N 151095CX, pg 157)



| Part No. | Description | Dimensions | 1 | 10 |
|----------|-------------|-----------------------|--------|--------|
| 125137CX | 9V siren | 2.0"L x 0.8"W x 0.5"H | \$5.95 | \$5.39 |

Train Sound Generator Kit ● 11-piece kit

- Produces 4 train sounds by switch selection
- Components supplied for operation on 3VDC (includes battery holder for 2 AA batteries), but circuit will operate from 2.4-6VDC (recommend P/N 151087CX 2 each, pg 157)

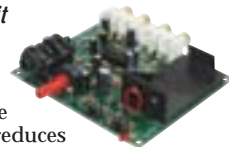


| Part No. | Description | Dimensions | 1 | 10 |
|----------|----------------|-----------------------|--------|--------|
| 125170CX | 4 train noises | 1.1"L x 0.6"W x 0.2"H | \$9.49 | \$8.59 |

velleman

Karaoke Kit ■ 59-piece kit

Do your "Elvis" impersonation by hooking up this kit between your CD player, MD player, or any other line-level source and your amplifier; and sing along to your favorite music. Adjustable microphone level and "vocal reduction" switch reduces original vocals on most stereo soundings.



- RCA input & output sockets
- ON/OFF switch & led power indicator
- Low power consumption: 16mA typical
- 6.3mm microphone jack

Requires: 9V battery (recommend P/N 198731CX, pg 157)

| Part No. | Product No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-------------|-----------------------|------------|---------|---------|
| 215394CX | MK140 | 3.9"L x 3.3"W x 1.0"H | 0.2 | \$15.95 | \$14.35 |

Speech Recording & Recognition Kits

Digital Voice Module

- Selectable 16k/32k/44k bps sampling rate
- 0.5W audio amp on board with volume control
- All components soldered on board
- Plays 16 messages • 1M DRAM on board
- Power requirements: 6-12VDC, 200mA (P/N 100095CX, pg 150)



| Part No. | Mfr. Cross Ref. No. | 1 | 10 |
|----------|---------------------|---------|---------|
| 124871CX | DVM58D | \$65.95 | \$59.95 |

velleman

Voice Activated LEDs Kit ■ 33-piece kit

Uses sound to activate the flashing of 4 bright red LEDs.

- Power consumption: 0.5mA min./12mA max.
- Adjustable sensitivity

Requires: 8-15VDC power supply (P/N 100095CX, pg 150) or 9VDC battery (P/N 151095CX, pg 157)



| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|-----------------------|------------|--------|--------|
| 147571CX | MK103 | 2.5"L x 1.6"W x 1.4"H | 0.1 | \$9.95 | \$8.95 |

Voice Direct II Stand-Alone Speech Recognition Kit

Bring life to consumer electronics, toys, motors, appliances, lights, and games through the power of VoiceActivation™ from Sensory. Voice Direct™ II is a speaker-dependent speech recognition module, allowing training of up to 15 words; capable of being organized into 1 to 3 command sets. Using sophisticated speech recognition technology, Voice Direct™ II maps spoken commands to system control functions via digital I/O ports. Each time one of the words is recognized, output pins on the module are toggled high for 1 second. With Continuous Listening Technology, it means no button press is required for activation. Up to 3 "gateway" words can be programmed, each allowing access to 5 commands. In addition, Sensory's latest Voice Direct™ II technology builds on the original Voice Direct™ by offering even higher accuracy, faster response times, and improved noise immunity.



| Part No. | Product No. | Description | Wt. (lbs.) | 1 | 10 |
|----------|-------------|-------------|------------|---------|---------|
| 225971CX | 66-0101 | Speech kit | 0.4 | \$59.95 | \$53.95 |

velleman

Holiday Kits

3D Flashing Christmas Tree Kit

■ 36-piece kit

- 16 flashing red LEDs
- Low power consumption: 8mA
- Extra green and yellow LEDs to customize your tree
- Size: 3.1"L x 3.5"W x 4.0"H

Requires: 9V battery (recommend P/N 151095CX, pg 157)

Shown with Battery
(not included)

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|--------|
| 211781CX | MK130 | \$10.95 | \$9.95 |



Santa Sleigh and Reindeer Kit ▲ 201-piece kit

Make sure Santa shows up in your house this year! 126 multi-colored LEDs animate the movement of the reins, sleigh and reindeer legs.

- Board size: 5.7"L x 3.2"W

Requires: 9V battery (recommend P/N 198791CX, pg 157) or 12VDC power supply (recommend P/N 100853CX, pg 150)



| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 211764CX | MK116 | \$22.95 | \$20.65 |

Deluxe Christmas Tree Kit ■ 208-piece kit

- No need to remove battery when using external power supply
- 134 LEDs (green, yellow, and red)
- Size: 3.2"W x 5.6"H
- Red LED simulates blinking candles

Requires: 12VDC@500mA power supply (recommend P/N 162996CX, pg 149) or 9V battery (recommend P/N 198791CX, pg 157)

| Part No. | Product No. | 1 | 10 |
|----------|-------------|---------|---------|
| 236072CX | MK117 | \$19.99 | \$17.99 |



Flashing Christmas Tree Kit ● 30-piece kit

- 16 twinkling red LEDs
- Customize with included green and yellow LEDs
- Power: 9V battery (recommend P/N 198791CX, pg 157)

| Part No. | Product No. | Price |
|----------|-------------|--------|
| 147635CX | MK100 | \$6.27 |



Flashing Pumpkin Kit ■ 71-piece kit

- Random flash effect simulates flickering candle
- 1 extra high intensity yellow LED illuminates the pumpkin
- 25 bright LEDs
- On/Off switch
- Size: 3.2"Hx4.0"Wx1.3"D

Requires: 9V battery (P/N 198791CX)

| Part No. | Product No. | 1 | 10 |
|----------|-------------|--------|--------|
| 236081CX | MK145 | \$9.99 | \$8.99 |



Don't worry about backorders. Over 99% of our products are in stock!
Just place your order by 6PM EST for same business day shipment.

CEBEK 1 Second to 3 Minute Timer Module

By operating a button, the relay will be activated for the selected time.

- Output contact rating: 5A @ 200VAC
- Size: 3.0"L x 1.7"W x 1.2"H

Requires: Power supply 12V @ 50mA (recommend P/N 100095CX, pg 150)



| Part No. | Description | 1 | 10 |
|----------|-------------|---------|---------|
| 147871CX | I-1 timer | \$19.95 | \$17.95 |

3 Second On to 1 Minute Off Cyclic Timer Module

By triggering the timer, the contacts will be engaged. Once this time has expired, the relay will remain in the off state for 3-60 seconds. It then restarts, repeating the on and off process until power is disconnected.

SALE

- Output by relay • Contact rating: 5A @ 200VAC
- Size: 3.0"L x 1.7"W x 1.2"H

Requires: Power supply 12V @ 50mA (recommend P/N 100095CX, pg 150)



| Part No. | Description | 1 | 10 |
|----------|-------------|---------|---------|
| 147846CX | I-10 timer | \$22.49 | \$20.29 |

velleman Quartz Clock Mechanism

Build your own clock or replace the clock mechanism of a damaged clock with this quartz clock mechanism from Velleman.

Includes: 1 x 1.5AA battery

- Dimensions: 2.2"Sq x 0.6"Thick



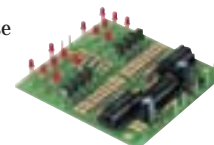
| Part No. | Description | Price |
|----------|------------------------|--------|
| 239661CX | Quartz clock mechanism | \$3.49 |

velleman Dual Electronic Dice Kit ■ 85-piece kit

Board games provide an excellent source of entertainment. Update your game. Play with these electronic dice. Great for education of probability theory. Displays are switched off automatically after 30 seconds to save battery power.

- Two fully independent dice, at your choice you can play with one or two dice

Requires: 9V battery (recommend P/N 198791CX, pg 157)



| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|---------------|------------|---------|---------|
| 200352CX | K3400 | 3.0"L x 2.8"W | 0.5 | \$18.95 | \$16.95 |

Power Supply and Motor Kits

velleman 1 Amp Power Supply Kit ■ 12-piece kit

Provides a regulated voltage adjustable between 1.2 and 35 volts at 1 amp. LM317 regulator gives you remarkably better ripple and regulation characteristics than conventional regulators. Chip includes current limiter and thermal overload protection.

- Output current max.: 1.5A
- Max. dissipation: 15W (cooled)
- Max. input voltage: 40V

Requires: 25.2VCT @ 2A quick connect power transformer (recommend P/N 102103CX or equivalent, pg 153)



| Part No. | Product No. | Dimensions | 1 | 10 |
|----------|-------------|---------------|---------|---------|
| 117621CX | K1823 | 2.1"L x 2.1"W | \$12.95 | \$11.65 |

Dual Adj. Regulated Power Supply Kit ■ 48-piece kit

Build a dual adjustable power supply for your circuits. Outputs positive-negative voltages from ± 5 to ± 15 VDC.

- Adjustable positive and negative supplies ± 5 to ± 15 VDC, 175mA – 750mA per supply
- 120VAC input • LED on indicator
- PC board construction

Includes: Components and hardware



| Part No. | Mfr. Cross Ref. No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|---------------------|-----------------------|------------|---------|---------|
| 20626CX | JE215 | 5.1"L x 3.5"W x 2.0"H | 2.1 | \$22.95 | \$20.49 |

velleman DC to Pulse Width Modulator Kit ▲ 40-piece kit

The circuit converts a DC voltage into a series of pulses, such that the pulse duration is directly proportional to the value of the DC voltage.

- PWM range: 0 to 100%
- Operating voltage: 8 to 35VDC
- PWM frequency: 100Hz to 5kHz (adjustable)
- Min. consumption: 35mA • Max. output current: 6.5A
- Efficiency: better than 90% at full load
- Adjustable sensitivity: 2.5 to 35VDC

| Part No. | Product No. | Dimensions | Wt. (lbs.) | 1 | 10 |
|----------|-------------|-----------------------|------------|---------|---------|
| 120539CX | K8004 | 3.3"L x 1.9"W x 1.8"H | 0.5 | \$22.95 | \$20.49 |



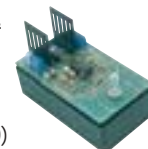
We'll match the print advertised price of any like product. It's that simple!

Jameco's Low-Price Guarantee

DC Motor Speed Control Kit ■ 35-piece kit

- This kit uses Pulse Width Modulation to vary the speed of a DC motor and maintain torque
- For motors up to 100VDC/5A max.

Requires: 5-16VDC supply (recommend P/N 114825CX, pg 150)



| Part No. | Description | Dimensions | 1 | 10 |
|----------|-------------------|-----------------------|---------|---------|
| 127829CX | Motor control kit | 3.6"L x 2.3"W x 1.2"H | \$19.95 | \$17.95 |

Unipolar Stepper Motor Driver Kit ■ 29-piece kit

- Drives 5, 6 or 8 lead unipolar stepper motors
- Will drive unipolar stepper motors rated up to 6-30VDC @ 1.25A
- Onboard 5VDC regulator



| Part No. | Description | Dimensions | 1 | 10 |
|----------|---------------|-----------------------|---------|---------|
| 139109CX | Stepper motor | 2.6"L x 1.9"W x 1.0"H | \$29.95 | \$26.95 |

DC Voltage Monitor Kit ● 46-piece kit

If battery status is important, you need this kit. It uses 7 LEDs to monitor 12VDC in 1V, 0.5V, or 0.25V steps. Monitor 8V or 5V in 0.25V steps. Great for boats, motor homes, model planes or race car Ni-Cads.



| Part No. | Mfr. Cross Ref. No. | Dimensions | 1 | 10 |
|----------|---------------------|---------------|--------|--------|
| 181833CX | VM-1 | 2.7"L x 1.3"W | \$8.95 | \$7.95 |

Stepper Motor Controller Card & Motor Kit

■ 102-piece kit

This kit is very useful in any home automation project where positioning is needed, such as controlling valves, HVAC duct dampers, natural light through window blinds, remotely turning down water heaters, or any robotic projects. This controller card can be used with P/N 128928CX (K8000 – computer interface board) and 16 of these kits can be connected to a single computer interface board. Both bipolar and unipolar motors can be used with this controller card (1A max.). Includes a high precision stepping motor (0.9 degree stepping angle).

- IC controlled via P/N 128928CX (K8000)
- Check status of switches via computer interface board or drive another motor
- Power supply: 7 – 25VAC or VDC @ 1.5A (recommend, P/N 237067CX, pg 150)
- Emergency stop can be sent to one or all cards
- Programmable in Visual Basic, Turbo Pascal for DOS, and Quick Basic (Windows® 95/98/ME) • Adjustable drive speed



| Part No. | Product No. | Dimensions | Price |
|----------|-------------|---------------|---------|
| 263628CX | K8005 | 3.9"L x 3.5"W | \$59.95 |

PAYMENT OPTIONS

Credit Card/Check Cards

We accept VISA, MasterCard, American Express and Discover. No surcharge. Your account will not be charged until your order is shipped. When ordering, please advise name on card and credit card billing address.

Check or Money Order

You may pay by check or money order in U.S. funds, drawn on a U.S. bank.

Open Account

It is easy to open an account with Jameco. Contact us for obtaining open account status.

C.O.D.

Personal checks are accepted. Please add \$7.00 per C.O.D. order. Include the name and address of your bank and your account number.

International Orders

All foreign orders must be prepaid with a credit card (see approved credit cards above), wire transfer, traveler's check, cashier's check or money order drawn on a U.S. bank in U.S. funds only. Please do not send cash. Jameco cannot accept letters of credit as a form of payment.

E-mail: international@Jameco.com.

SERVICES

30-Day Money Back Guarantee

If for any reason you are not completely satisfied with your purchase, simply return the product, in its original packaging, within 30 days for a refund, credit or exchange. Parts returned due to customer ordering error may be subject to a restock fee. Call our customer service department at 1-800-536-4316 or visit www.Jameco.com to request an RMA#. It should appear clearly on the outside of the box. Returns without an RMA# will not be accepted, and no freight collect packages will be accepted. A completed Jameco customer service form, located on the back of the packing slip, must be included with your return. We're sorry, but books, kits, software, grab bags and special orders cannot be returned. Special orders consist of products sold at an OEM quantity discount or products not listed in the Jameco catalog.

Jameco Warranty

Jameco warrants all merchandise against defects in material or workmanship for a period of 90 days from the original purchase date unless otherwise stated in writing by Jameco. If Jameco receives the product considered to be defective within this warranty period and the product is determined to be defective, Jameco will, at its sole option and discretion, either repair or replace the product. The foregoing is your sole and exclusive remedy and states Jameco's entire liability arising out of this warranty. [However, Jameco will transfer to customer whatever transferable warranties and indemnities Jameco receives from the manufacturer of the products. Any claims arising from such manufacturer's warranties shall be the sole responsibility of the manufacturer and not of Jameco.] Moreover, Jameco's limited warranty is void if the damage or defect has resulted from improper customer assembly, failure by customer to follow instruction, product modification, negligent or improper operation, accident, abuse or misapplication. Products returned to Jameco pursuant to this warranty must be returned to Jameco prepaid.

No Other Warranties

The limited warranty above is exclusive and in lieu of all other conditions and warranties for the products and documentation. Jameco makes no other conditions or warranties, express, implied, statutory or otherwise, and expressly disclaims all other conditions and warranties, including but not limited to, implied conditions or warranties of merchantability, fitness for a particular purpose, and non-infringement of the products.

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Jameco shall not be liable for any incidental, special or consequential damages for breach of any warranty, expressed or implied, directly or indirectly arising out of Jameco's sale of merchandise, including any failure to deliver any merchandise, or arising out of customer's installation or use, whether proper or improper, of the product, separately or in combination with other equipment, or from any other cause. Products sold by Jameco are not authorized for use as critical components in life support devices or systems.

5 EASY WAYS TO ORDER

Telephone: Toll-Free 24 hours a day!

1-800-831-4242

International orders,

call 1-650-592-8097

Toll-Free
FAX:

US/Canada: 1-800-237-6948

Brazil: 000-817-455-6119

Columbia: 980-9-136748

Indonesia: 1-803-015-237-6948

Mexico: 001-800-593-1449

New Zealand: 080-044-0470

Other Countries: 1-650-592-2503

Online:

<http://www.Jameco.com>

On-line catalog! Our complete offering of over 11,000 products searchable on the Jameco website!

Mail:

E-mail your order to:

sales@Jameco.com or fill out the order form (next page) and mail it to us.

In-Person:

Visit Jameco at 1355 Shoreway Rd., Belmont, CA. Will-call office hours are 8:00 a.m. – 5:00 p.m. Monday – Friday.

CONTACT INFORMATION

The following services are available at 1-650-592-8097 Monday – Friday from 6:30 a.m. – 5:00 p.m. PST or via e-mail:

- International Sales (international@Jameco.com)
- Customer Service (custservice@Jameco.com)
- Credit Department (credit@Jameco.com)
- Technical Support (tech@Jameco.com)

Toll-Free Hotline!

Please call us at 1-800-831-4242.

A Nuestros Clientes en

La Republica Mexicana: Si usted requiere tratar en Espanol y adquirir nuestros productos facturados L.A.B. Cd. De Mexico (libres de Aduana) y enviados al interior del pais via Estafeta, contacte con nuestro Representante y Distribuidor exclusivo;

Proyeccion Electronica de Mexico, S.A. de

C.V. a: General E-mail: info@proyel.com

Quote E-mail: jmc@proyel.com

Phone/Fax: 01-(55) 5273-5029

Direccion:

Benjamin Franklin No. 166 Desp. 1

Col. Escandon Deleg. Miguel Hidalgo

C.P. 11800 Mexico, D.F.

Los demas paises de Latinoamerica: Ya pronto tendremos servicio en su Region. Si usted tiene alguna duda o comentario respecto a los servicios de Jameco, contacte con la empresa arriba mencionada en la Ciudad de Mexico, ellos le pueden ayudar.

PRICES

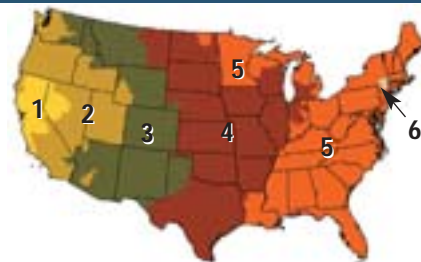
Prices are effective 7-12-04. In the unlikely event you find a lower price in a printed catalog or magazine, simply call us with the details at the time of purchase. We'll match any price above our cost. Prices and discounts are subject to change without notice. We are not responsible for any typographical errors in this catalog. Photos are representative; product appearance may vary.

ONLINE INFORMATION

Get answers to frequently asked questions on the Jameco website at:

<http://www.Jameco.com>

SHIPPING INFORMATION



Guaranteed Delivery Time for UPS Ground (Business Days)

- | | | |
|--------|--------|--------|
| 1 day | 2 days | 3 days |
| 4 days | 5 days | 6 days |

Orders received Mon.–Fri. by 6:00 p.m. Eastern Standard Time will be shipped the same day. Orders received Saturday and Sunday will ship the following Monday (except on holidays). If we are unable to fill your order on the day received, we will send you a gift certificate worth \$5.00 towards your next Jameco purchase. This offer does not apply to orders waiting for credit approval or backordered items.

Options and Rates*



Shipping delivery times are based on working days.

Ground Service

Up to 6 working days for commercial address (up to 9 working days for residential).

Guaranteed delivery times may vary depending on zip code. \$6.95 for 1st 2 lbs.; \$0.79 for each additional lb.

2-Day Air Service

\$12.49 for 1st 2 lbs.; \$1.59 for each additional lb.

Next Day Air Service

• \$22.95 for AM delivery for 1st 2 lbs.; \$1.99 for each additional lb.

• \$16.95 for afternoon delivery for 1st 2 lbs.; \$1.99 for each additional lb.

Priority Mail (USPS)

\$4.95 for 1st lb.; \$1.99 for each additional lb.

Order must be placed before 5:00 p.m. Eastern Standard Time to ship same day.

Jameco reserves the right to rebill shipping surcharges for customer misaddressed packages.

* The above rates apply to single box shipments that are less than 50 lbs. Please call for shipping quote on packages greater than 50 lbs.

International Shipping & Handling

Shipping is via courier or postal service, depending on your preference, insurance availability, and the size and weight of your package. Jameco will apply actual shipping charges with a nominal handling charge on all foreign orders. For mail-in customers, please include 25% for shipping charges or call for a shipping quotation. All returns that meet postal requirements must be sent prepaid via air parcel post. All courier shipments to Canada and Mexico require a certificate of origin. Jameco will provide a certificate of origin for a \$25 processing fee.

POLICIES

Confirming Orders

Please do not send confirming orders. If company policy necessitates a confirming order, please mark "CONFIRMING" boldly on the first page of the order.

No Minimum Order

A \$5.00 processing fee will be added to orders under \$20.00.

Order Form

See previous page for Ordering Information

Fax 1-800-237-6948 Order 24 hours/7 days a week!

Jameco, 1355 Shoreway Road, Belmont, CA 94002 Call: 1-800-831-4242 International TEL: 1-650-592-8097 FAX: 1-650-592-2503

1 Ordered By (We will ship to this address unless you enter #2).

Customer No. _____ VIP No. _____
(see back cover)

Company

Name of Requisitioner

Title

Name of Purchasing Agent

Title

Street Address/PO Box Number

City

State

Zip Code

Contact information (please provide all information and check method preferred)

()

Daytime phone number - Required for Credit Card Orders

()

Fax Number

E-mail Address

☐ Please check this box if you prefer not to receive special offers via e-mail from Jameco.

2 Ship To (Only required if different from #1)

Company

Name

Title

Street Address/PO Box Number

City

State

Zip Code

3 Method of Payment

☐ Prepaid (check enclosed) ☐ C.O.D. (\$7.00 service charge)

☐ Net 30 Days (Account must be previously established. Authorized P.O. # required.)

PURCHASE ORDER NO.: _____

☐ Credit Card

Credit Card users only:



Credit Card Number

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Exp. Date: Month

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Year

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Name on card

Billing Address Street/PO Box

City/State/Zip

4

| ITEM NO. | QTY. | PART NUMBER | DESCRIPTION | PAGE NO. | WEIGHT (LBS.) | UNIT PRICE | TOTAL |
|----------|------|-------------|-------------|--------------|---------------|------------|-------|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
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| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| | | | | TOTAL WEIGHT | | SUB-TOTAL | |

5 Please Check Shipping Method Below



- ☐ Priority Mail (USPS)\$4.95 for 1st lb., \$1.99 for each additional lb.
- ☐ Ground\$6.95 for 1st 2 lbs., \$0.79 for each additional lb.
- ☐ 2 Day Air Service\$12.49 for 1st 2 lbs., \$1.59 for each additional lb.
- ☐ Next Day Air Service (AM delivery).....\$22.95 for 1st 2 lbs., \$1.99 for each additional lb.
- ☐ Next Day Air Service (PM delivery).....\$16.95 for 1st 2 lbs., \$1.99 for each additional lb.
- ☐ Foreign Shipment via Air Parcel PostShipping approximately 25% of order total. Excess fees will be refunded. Additional shipping methods available

Some restrictions may apply. See order information (previous page) for other shipping methods and conditions of sale. Shipping rate is based on a single package shipment.

Add \$5.00 processing fee on orders under \$20

Please Add Applicable Sales Tax (California Only)

Shipping (See Item 5)

C.O.D. (add \$7.00)

Canada and Mexico Certificate of Origin (\$25)

Credit Memo (please attach)

TOTAL

6

JAMECO thanks you for Your Order!

| | |
|---|---------------------|
| # | FOR OFFICE USE ONLY |
| | / |

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Great Deals!

We offer GREAT DEALS across our entire product line, not just those on the cover or page 5. Take a look below and see why we're proud to stand behind our Guaranteed Lowest Prices!

Great Deals!

Linear Series Amplifiers

We continue to expand our line of linear ICs, and our amplifiers are no exception. Just take a look at the representative savings we offer on pages 24-26.

Save Up to 67%

| Jameco Part No. | Product No. | PRICES - See Bottom Right For Details | | | | Minimum | |
|-----------------|-------------|---------------------------------------|-----------|---------|---------|---------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 22939CX | LF353N | \$0.39 | \$0.95 | \$0.46 | \$0.94 | \$0.07 | 15.2% |
| 212185CX | MC3303N | \$0.28 | \$0.52 | \$0.64 | \$0.55 | \$0.24 | 46.2% |
| 33161CX | TL062CP | \$0.21 | \$0.64 | — | \$0.64 | \$0.43 | 67.2% |
| 279734CX | TLC271CP | \$0.60 | — | \$0.96 | \$0.92 | \$0.32 | 34.8% |
| 242026CX | TLC274CN | \$0.55 | \$0.81 | \$0.84 | \$0.81 | \$0.26 | 32.1% |

Surface Mount Linear Amplifiers

Compare the SMT prices listed below and see why you'll want to make Jameco your first choice. Our complete selection of Surface Mount Linear ICs is on pages 26 & 27.

Save Up to 22%

| Jameco Part No. | Product No. | PRICES - See Bottom Right For Details | | | | Minimum | |
|-----------------|-------------|---------------------------------------|-----------|---------|---------|---------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 245518CX | LF353D | \$0.37 | \$0.45 | \$0.54 | \$0.45 | \$0.08 | 17.8% |
| 242114CX | LM1117T-3.3 | \$0.73 | \$1.16 | \$0.88 | — | \$0.15 | 17.0% |
| 251168CX | LMC6482AIM | \$2.06 | \$2.29 | — | \$2.30 | \$0.23 | 10.0% |
| 267240CX | LMC6484AIM | \$3.49 | \$3.88 | — | \$3.88 | \$0.39 | 10.1% |
| 267266CX | LMC660CM | \$1.35 | \$1.74 | — | \$1.80 | \$0.39 | 22.4% |
| 280217CX | TLC271ACD | \$0.81 | \$0.90 | \$0.96 | \$0.90 | \$0.09 | 10.0% |
| 280161CX | TLC27M4CD | \$0.81 | \$0.90 | \$0.96 | \$0.90 | \$0.09 | 10.0% |

Voltage Regulators

Jameco offers savings throughout our product lines, including voltage regulators. Take a look at some of these exceptional deals, and then find the product you're looking for on pages 23 & 24.

Save Up to 28%

| Jameco Part No. | Product No. | PRICES - See Bottom Right For Details | | | | Minimum | |
|-----------------|--------------|---------------------------------------|-----------|---------|---------|---------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 23499CX | LM309K-STEEL | \$4.99 | \$5.88 | \$8.53 | \$7.10 | \$0.89 | 15.1% |
| 24467CX | LM723CN | \$0.26 | \$0.64 | \$0.32 | \$0.94 | \$0.06 | 18.8% |
| 33347CX | TL431CLP | \$0.27 | \$0.40 | \$0.38 | \$0.40 | \$0.11 | 28.9% |

74LS Series

No spare parts bin is complete without a selection of 74LS devices. Stock up on our broad selection; each device is priced to save you money. See page 19.

Save Up to 52%

| Jameco Part No. | Product No. | PRICES - See Bottom Right For Details | | | | Minimum | |
|-----------------|-------------|---------------------------------------|-----------|---------|---------|---------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 46287CX | 74LS02 | \$0.29 | \$0.50 | — | \$0.50 | \$0.21 | 42.0% |
| 46341CX | 74LS05 | \$0.34 | \$0.50 | \$0.62 | \$0.50 | \$0.16 | 32.0% |
| 46404CX | 74LS10 | \$0.24 | \$0.50 | \$0.66 | \$0.50 | \$0.26 | 52.0% |
| 48004CX | 74LS74 | \$0.29 | \$0.50 | — | \$0.50 | \$0.21 | 42.0% |
| 48098CX | 74LS86 | \$0.35 | \$0.50 | — | \$0.50 | \$0.15 | 30.0% |
| 48151CX | 74LS93 | \$0.89 | \$1.33 | \$1.73 | \$1.33 | \$0.44 | 33.1% |

Surface Mount 74AC Series CMOS

Need high-quality surface mount 74AC devices at the best prices? Check out our newly expanded line on pages 13 & 14.

Save Up to 48%

| Jameco Part No. | Product No. | PRICES - See Right For Details | | | | Minimum | |
|-----------------|----------------|--------------------------------|-----------|---------|---------|---------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 263871CX | 74AC00M | \$0.15 | \$0.39 | \$0.29 | \$0.46 | \$0.14 | 48.3% |
| 265711CX | 74AC374M | \$0.30 | \$0.50 | \$0.62 | \$0.96 | \$0.20 | 40.0% |
| 263880CX | TI SN74AC00D | \$0.16 | \$0.39 | \$0.29 | \$0.46 | \$0.13 | 44.8% |
| 264111CX | TI SN74AC04D | \$0.17 | \$0.39 | \$0.26 | \$0.46 | \$0.09 | 34.6% |
| 265720CX | TI SN74AC374DW | \$0.33 | \$0.50 | \$0.62 | \$0.96 | \$0.17 | 34.0% |

74AC Series CMOS

Save 40% or more on your next purchase of 74AC devices! Our recently-expanded offering of products from six Major Brands is located on pages 13 & 14.

Save Up to 55%

| Jameco Part No. | Product No. | PRICES - See Below For Details | | | | Minimum | |
|-----------------|-------------|--------------------------------|-----------|---------|---------|---------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 211810CX | 74AC02 | \$0.20 | \$0.51 | \$0.34 | \$0.56 | \$0.14 | 41.2% |
| 211836CX | 74AC08 | \$0.20 | \$0.56 | \$0.45 | \$0.56 | \$0.25 | 55.6% |
| 211844CX | 74AC14 | \$0.21 | \$0.39 | \$0.41 | \$0.48 | \$0.18 | 46.2% |
| 211852CX | 74AC32 | \$0.25 | \$0.39 | \$0.48 | \$0.48 | \$0.14 | 35.9% |
| 264292CX | 74AC86M | \$0.17 | \$0.39 | \$0.33 | \$0.47 | \$0.16 | 48.5% |
| 211895CX | 74AC240 | \$0.30 | \$0.50 | \$0.63 | \$0.72 | \$0.20 | 40.0% |
| 211908CX | 74AC244 | \$0.29 | \$0.50 | \$0.87 | \$0.72 | \$0.21 | 42.0% |

74ACT Series CMOS

We just expanded our line of 74ACT CMOS ICs. Now you can purchase Texas Instruments and other Major Brands for less. See pages 14 & 15 for details.

Save Up to 52%

| Jameco Part No. | Product No. | PRICES - See Below For Details | | | | Minimum | |
|-----------------|-------------|--------------------------------|-----------|---------|---------|---------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 211959CX | 74ACT00 | \$0.25 | \$0.39 | \$0.34 | \$0.48 | \$0.09 | 26.5% |
| 211975CX | 74ACT04 | \$0.25 | \$0.39 | \$0.39 | \$0.64 | \$0.14 | 35.9% |
| 211983CX | 74ACT08 | \$0.16 | \$0.39 | \$0.34 | \$0.484 | \$0.18 | 52.9% |
| 211991CX | 74ACT14 | \$0.23 | \$0.39 | \$0.36 | \$0.80 | \$0.13 | 36.1% |
| 212011CX | 74ACT74 | \$0.25 | \$0.39 | \$0.40 | \$0.60 | \$0.14 | 35.9% |
| 212038CX | 74ACT138 | \$0.23 | \$0.45 | \$0.46 | \$0.528 | \$0.22 | 48.9% |
| 212062CX | 74ACT245 | \$0.38 | \$0.50 | \$0.62 | \$0.768 | \$0.12 | 24.0% |

Potter & Brumfield Relays

Jameco is proud to introduce the Potter & Brumfield line of relays! When you need dependable, reliable relays priced below other suppliers, turn to page 105.

Save Up to 19%

| Jameco Part No. | Product No. | PRICES - See Below For Details | | | | Minimum | |
|-----------------|---------------|--------------------------------|-----------|---------|---------|---------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 282263CX | K10P-11D15-24 | \$5.99 | \$7.70 | \$7.48 | \$10.34 | \$1.49 | 19.9% |
| 282351CX | KRPA-11AG-24 | \$9.99 | \$12.34 | \$11.97 | \$16.74 | \$1.98 | 16.5% |
| 282378CX | KRPA-11DG-12 | \$9.95 | \$12.34 | \$11.97 | \$16.74 | \$2.02 | 16.9% |
| 282386CX | KRPA-11DG-24 | \$9.69 | \$12.34 | \$11.97 | \$16.74 | \$2.28 | 19.0% |
| 282407CX | KRPA-14AG-120 | \$11.79 | \$14.50 | \$14.07 | \$19.67 | \$2.28 | 16.2% |
| 282474CX | KUP-14A15-120 | \$9.69 | \$12.12 | \$11.76 | \$15.92 | \$2.07 | 17.6% |

Discrete LEDs

Check out our complete line of money-saving LEDs on pages 38 & 39. You'll find standard and high-output discretes, as well as 7-segment devices up to 5.0" (that's not a typo!) tall!

Save Up to 67%

| Jameco Part No. | Product No. | PRICES - See Below For Details | | | | Minimum | |
|-----------------|-------------------|--------------------------------|-----------|---------|---------|---------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 253631CX | HLMP-1503 | \$0.103 | \$0.34 | \$0.13 | \$0.344 | \$0.027 | 20.8% |
| 104256CX | Ligitek LA93B/G-1 | \$0.23 | \$0.45 | \$0.48 | \$0.475 | \$0.22 | 48.9% |
| 104264CX | Ligitek LA93B/Y-1 | \$0.35 | \$0.61 | \$0.57 | — | \$0.22 | 38.6% |
| 107393CX | Ligitek LE3330 | \$0.11 | \$0.34 | — | \$0.344 | \$0.23 | 67.6% |
| 94553CX | Ligitek LHG2062 | \$0.29 | \$0.50 | \$0.37 | \$0.50 | \$0.08 | 21.6% |
| 34657CX | Ligitek LY2040 | \$0.13 | \$0.34 | \$0.16 | \$0.344 | \$0.03 | 18.8% |

More on Price Comparisons

These are single unit prices taken from each party's website on June 17, 2004 and do not include shipping & handling charges, volume discounts or any other discounts. Pricing does fluctuate, so please be sure to check when making purchases.

Great Deals Across Our Product Line!

Great Deals!

We offer GREAT DEALS across our entire product line, not just those on the cover or page 5. Take a look below and see why we're proud to stand behind our Guaranteed Lowest Prices!

Great Deals!

EEPROM

We're expanding our selection of EEPROM devices. So whether you need DIPs for prototyping or SOIC for production, check out the prices below. Then go to page 6 to save money!

Save Up to 18%

| Jameco Part No. | Product No. | PRICES - See Bottom Right For Details | | | | Minimum Savings | |
|-----------------|-------------|---------------------------------------|-----------|---------|---------|-----------------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 276568CX | 24C00 DIP | \$0.26 | \$0.36 | \$0.32 | \$0.40 | \$0.06 | 18.8% |
| 276584CX | 24C00 SOIC | \$0.26 | \$0.38 | \$0.32 | \$0.35 | \$0.06 | 18.8% |
| 276664CX | 24C08 SOIC | \$0.32 | \$0.39 | \$0.48 | \$0.56 | \$0.07 | 17.9% |
| 276681CX | 24C16 SOIC | \$0.42 | \$0.65 | \$0.51 | \$0.59 | \$0.09 | 17.6% |
| 200619CX | 24C65 DIP | \$1.89 | \$2.76 | \$2.30 | \$2.97 | \$0.41 | 17.8% |
| 102058CX | 93C46 DIP | \$0.35 | \$0.43 | \$0.41 | \$0.49 | \$0.06 | 14.6% |



4000 Series CMOS

Save 35% or more on your 4000 Series CMOS purchases! Be sure to review our complete selection of devices on pages 20 & 21.

Save Up to 56%

| Jameco Part No. | Product No. | PRICES - See Bottom Right For Details | | | | Minimum Savings | |
|-----------------|-------------|---------------------------------------|-----------|---------|---------|-----------------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 12984CX | CD4042 | \$0.25 | \$0.55 | \$0.44 | \$0.55 | \$0.19 | 43.2% |
| 12992CX | CD4043 | \$0.31 | \$0.55 | \$0.68 | \$0.55 | \$0.24 | 43.6% |
| 13004CX | CD4044 | \$0.32 | \$0.48 | \$0.68 | \$0.48 | \$0.16 | 33.3% |
| 13071CX | CD4050 | \$0.22 | \$0.50 | \$0.53 | \$0.50 | \$0.28 | 56.0% |
| 13274CX | CD4071 | \$0.22 | \$0.50 | \$0.34 | \$0.50 | \$0.12 | 35.3% |
| 13442CX | CD4099 | \$0.30 | \$0.48 | \$0.68 | \$0.48 | \$0.18 | 37.5% |
| 13469CX | CD4503 | \$0.28 | \$0.48 | \$0.81 | \$0.48 | \$0.20 | 41.7% |



EPROM

Whether you need new high-density configuration or a hard-to-find standard, be sure to check out our money-saving selection on page 6.

Save Up to 11%

| Jameco Part No. | Product No. | PRICES - See Bottom Right For Details | | | | Minimum Savings | |
|-----------------|-------------|---------------------------------------|-----------|---------|---------|-----------------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 146149CX | 27C010-70 | \$2.39 | \$3.59 | \$2.70 | — | \$0.31 | 11.5% |
| 65904CX | 27C256-12 | \$2.05 | — | \$2.30 | — | \$0.25 | 10.9% |

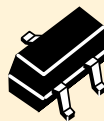


Surface Mount Bipolar Transistors

Need a low-noise, small-signal amplifier or a high-power MOSFET switcher? Be sure to review our full selection of money saving transistors on pages 28 & 29.

Save Up to 36%

| Jameco Part No. | Product No. | PRICES - See Bottom Right For Details | | | | Minimum Savings | |
|-----------------|-------------|---------------------------------------|-----------|---------|---------|-----------------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 213938CX | MMBT2222A | \$0.045 | \$0.17 | \$0.06 | \$0.08 | \$0.015 | 25.0% |
| 213946CX | MMBT2369A | \$0.05 | \$0.18 | \$0.07 | \$0.10 | \$0.020 | 28.6% |
| 214674CX | MMBT4124 | \$0.055 | — | \$0.06 | \$0.08 | \$0.005 | 8.3% |
| 214703CX | MMBT4401 | \$0.057 | \$0.17 | \$0.06 | — | \$0.003 | 5.0% |
| 214720CX | MMBT4403 | \$0.045 | \$0.17 | \$0.06 | \$0.06 | \$0.015 | 25.0% |
| 213962CX | MMBT5087 | \$0.049 | \$0.17 | \$0.07 | \$0.09 | \$0.021 | 30.0% |
| 213920CX | MMBT918 | \$0.06 | \$0.313 | \$0.08 | \$0.168 | \$0.020 | 25.0% |
| 214842CX | MMBTAO6 | \$0.057 | \$0.24 | \$0.09 | \$0.117 | \$0.033 | 36.7% |



Connectors

Jameco just added popular Switchcraft audio connectors to our catalog. Now you can save 15 to 30% or more on this trusted name brand. See page 70 for details.

Save Up to 39%

| Jameco Part No. | Description | PRICES - See Right For Details | | | | Minimum Savings | |
|-----------------|-----------------|--------------------------------|-----------|---------|---------|-----------------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 281789CX | Switchcraft 297 | \$4.59 | \$5.36 | \$5.30 | \$6.80 | \$0.71 | 13.4% |
| 281623CX | Switchcraft A6F | \$10.79 | — | \$17.82 | \$18.57 | \$7.03 | 39.5% |
| 281631CX | Switchcraft A6M | \$9.99 | — | \$14.17 | \$14.75 | \$4.18 | 29.5% |
| 281711CX | Switchcraft D6M | \$12.35 | — | \$18.22 | \$16.56 | \$4.21 | 25.4% |



Optoisolators

Jameco offers a wide selection of optoisolators, and they're priced to save you money. See page 37 for everything from switches to triac drivers.

Save 17% or More

| Jameco Part No. | Product No. | PRICES - See Below For Details | | | | Minimum Savings | |
|-----------------|-------------|--------------------------------|-----------|---------|---------|-----------------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 277464CX | 4N36 | \$0.20 | \$0.56 | \$0.30 | \$0.56 | \$0.10 | 33.3% |
| 277510CX | 6N135 | \$0.54 | \$0.79 | \$0.92 | \$0.792 | \$0.25 | 31.6% |
| 42471CX | 6N136 | \$0.44 | \$0.79 | \$0.92 | \$0.792 | \$0.35 | 44.3% |
| 42489CX | 6N138 | \$0.65 | \$0.79 | \$0.92 | \$0.792 | \$0.14 | 17.7% |
| 277561CX | H11A1 | \$0.27 | \$0.56 | \$0.42 | \$0.56 | \$0.15 | 35.7% |
| 277712CX | H11G1 | \$0.51 | \$0.90 | \$0.82 | \$0.896 | \$0.31 | 37.8% |
| 113988CX | H11L1 | \$0.53 | — | — | \$2.80 | \$2.27 | 81.1% |
| 24918CX | MCT-6 | \$0.49 | \$0.84 | \$0.92 | \$0.836 | \$0.346 | 41.4% |
| 26278CX | MOC3010 | \$0.49 | \$0.84 | \$0.87 | \$0.836 | \$0.346 | 41.4% |



Radial Electrolytic Capacitors

Electrolytic capacitors may all look the same, but they're certainly not priced the same! See page 45, then reduce your costs by purchasing from Jameco.

Save Up to 70%

| Jameco Part No. | Value (µF) | Voltage | PRICES - See Below For Details | | | | Minimum Savings | |
|-----------------|------------|---------|--------------------------------|-----------|---------|---------|-----------------|----------|
| | | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 199048CX | 10µF | 100V | \$0.05 | \$0.35 | \$0.08 | \$0.075 | \$0.025 | 33.3% |
| 198942CX | 22µF | 35V | \$0.035 | \$0.21 | \$0.06 | \$0.049 | \$0.014 | 28.6% |
| 198951CX | 47µF | 35V | \$0.05 | \$0.28 | \$0.08 | \$0.068 | \$0.018 | 26.5% |
| 93770CX | 220µF | 35V | \$0.09 | \$0.41 | \$0.16 | \$0.198 | \$0.07 | 43.8% |
| 158465CX | 470µF | 63V | \$0.30 | \$1.50 | \$1.23 | \$1.01 | \$0.71 | 70.3% |



Tantalum Capacitors

Don't let capacitors bypass your potential savings. Our network of sources finds the best deals in Tantalum capacitors, and we're passing the savings on to you!

Save Up to 50%

| Jameco Part No. | Value (µF) | Voltage | PRICES - See Below For Details | | | | Minimum Savings | |
|-----------------|------------|---------|--------------------------------|-----------|---------|---------|-----------------|----------|
| | | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 87020CX | 10µF | 10V | \$0.18 | \$0.24 | \$0.26 | \$0.249 | \$0.06 | 25.0% |
| 87038CX | 10µF | 16V | \$0.29 | \$0.36 | \$0.40 | \$0.495 | \$0.07 | 19.4% |
| 33486CX | 0.1µF | 35V | \$0.25 | \$0.48 | \$0.30 | \$0.52 | \$0.05 | 16.7% |
| 33700CX | 100µF | 6.3V | \$1.19 | \$2.60 | \$2.40 | — | \$1.21 | 50.4% |
| 94001CX | 2.2µF | 16V | \$0.19 | \$0.48 | \$0.34 | \$0.52 | \$0.15 | 44.1% |



Trimmer Potentiometers

Be sure to take a look at our expanding line of trimmer pots and learn how you can save! Our complete selection is on pages 53-55.

Save Up to 32%

| Jameco Part No. | Description | PRICES - See Below For Details | | | | Minimum Savings | |
|-----------------|----------------|--------------------------------|-----------|---------|---------|-----------------|----------|
| | | Jameco* | Digi-Key* | Mouser* | Newark* | Savings | Discount |
| 254545CX | 3329P-253 type | \$1.70 | — | \$2.24 | — | \$0.54 | 24.1% |
| 254511CX | 3329P-502 type | \$1.70 | \$2.61 | \$2.24 | \$2.61 | \$0.54 | 24.1% |
| 253981CX | 3362P-102 type | \$0.59 | \$0.83 | \$0.83 | \$0.825 | \$0.235 | 28.5% |
| 254203CX | 3362W-103 type | \$0.60 | \$0.83 | \$0.83 | \$0.825 | \$0.225 | 27.3% |
| 41890CX | 43P5K type | \$1.05 | \$1.73 | \$1.55 | \$1.81 | \$0.50 | 32.2% |



More on Price Comparisons

These are single unit prices taken from each party's website on June 17, 2004 and do not include shipping & handling charges, volume discounts or any other discounts. Pricing does fluctuate, so please be sure to check when making purchases.

More Selection, More Versatility in Opto Products!

Take a look at the new Opto section of this catalog, and you'll see a greater selection in a new, easy-find layout. Want choices? We've added 30 optoisolators to cover all your high voltage isolation requirements. On top of that, you'll see new additions in the most popular component



categories, including 4N series, 6N series, H11 series, and MOC series opto products. Plus, we've expanded our inventory of slotted optical switches with new components to give you more versatility as you perfect your designs!



Our Lowest USB 2.0 Prices – Ever!

Jameco offers the lowest prices in USB 2.0 cables, period! You just can't find a better deal on a USB 2.0 cable assembly with gold connectors and low-resistance conductors!



Jameco also has a wide selection of other USB cables too. Choose from standard or transparent connectors, thin cables that retract into a quarter-sized disk, and much more.

SALE



Wireless Optical ScrollPro 5-Button Mouse

Memorex's RF ScrollPro optical mouse offers convenient RF technology with optical tracking precision on any flat surface, even without a mouse pad. No mouse ball or internal rollers, thus no cleaning is required. 5 programmable buttons for maximum versatility and productivity. Includes a receiver with a PS/2 connector & USB adapter.



- Wireless (RF) 6' range, 2-channel
- 800 dpi resolution
- Compatible with Windows® 95/98/2000/NT4.0/ME/XP

Includes: PS/2 to USB adapter, 2 AAA batteries for mouse unit, desktop charger bay, 6VDC @ 300mA wall adapter, CD-ROM software and user's guide

| Part No. | Description | 1 | 10 | 25 |
|----------|------------------------|---------|---------|---------|
| 265447CX | RF optical mouse | \$29.95 | \$28.45 | \$27.29 |

USB Mini Blue Optical Mouse

This unique mouse is much smaller than typical, but it boasts big mouse features! Optical technology precisely tracks on any surface, the fingertip scroll wheel offers fast and easy screen navigation and the USB interface assures universal compatibility.

- 800 dpi resolution
- Size: 3.7"L x 2.2"W x 1.3"H
- System mode enhanced scroll mode
- Compatible with Windows® 98/ME/2000/XP



| Part No. | Description | 1 | 10 | 25 |
|----------|--------------------------|---------|---------|---------|
| 265471CX | Mini optical mouse | \$17.89 | \$16.99 | \$16.15 |

Join the Robotic Revolution!



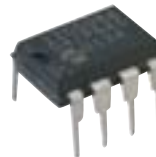
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Multimedia Card Reader

USB Interface

Here's an easy way to upload photos, files, movies, and data from your multimedia flash memory card to your computer! This flash memory card reader sits right on top of your desk and acts like a removable disk drive, treating your memory card like a diskette. Drag and drop files from the card to your computer and vice versa.

- 1 expansion slot for compact flash card
- USB-A male connector
- Compatible with PC's and MAC's



| Part No. | Product No. | 1 | 5 | 10 |
|----------|-----------------|---------|---------|---------|
| 278125CX | SDDR-1201 | \$13.59 | \$12.25 | \$10.95 |

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Thumb through pages 118-152 for a complete selection of switching and linear, enclosed, open-frame, wall and table-top configurations.



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Now you can purchase AMP, Amphenol and Molex connectors at Jameco's great low prices! We recently expanded our line of D-Sub, UHF, BNC and power connectors. So whether you need data, RF or power connectors,



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you'll find the products you need on pages 74-89.



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Jameco offers Belden cable, the undisputed leader in quality cabling, for your critical applications. Check out pages 60-63 for a wide variety of stranded and solid-core, single and multi-conductor cables at our very competitive prices.



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